cobas® 6800/8800 Systems

Host Interface Manual
Version 1.10
Software version 1.3

Publication information

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1.8	1.3	May 2020	• Support of new sample type COBAS PCR MEDIA SWAB for SARS-CoV-2 assay • Support of new sample type URINE for BKV assay What is new in publication version 1.8 (11)
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1.10	1.3	March 2021	• Support of **cobas**® SCoV2 Var1 assay What is new in publication version 1.10 (10)

Revision history

Edition notice

This publication is intended for Host Interface programmers and Roche field engineers of the **cobas**® 6800/8800 Systems.

Every effort has been made to ensure that all the information contained in this publication is correct at the time of publishing. However, the manufacturer of this product may need to update the publication information as output of product surveillance activities, leading to a new version of this publication.

Where to find information

The **User Assistance** contains all information about the product, including the following:

- Routine operation
- Maintenance
- Safety
- Troubleshooting information
- Configuration information
- Background information

The **Safety Guide** contains important safety information. You must read the Safety Guide before operating the instrument.

The **User Guide** focuses on routine operation and maintenance. The chapters are organized according to the normal operation workflow.

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To avoid incorrect results, ensure that you are familiar with the instructions and safety information.

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Training

Do not carry out operation tasks or maintenance actions unless you have received training from Roche Diagnostics. Leave tasks that are not described in the user documentation to trained Roche Service representatives.

Screenshots

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Disclaimer

Some assays mentioned in this document may not be approved for distribution in all countries - consult your country regulatory department for more information.

Approvals

The **cobas**® 6800/8800 Systems meet the requirements laid down in:

Directive 98/79/EC of the European Parliament and of the Council of 27 October 1998 on in vitro diagnostic medical devices.

Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.
To view the full text of the 2014/53/EU declaration of conformity, go to the Roche DiaLog Global Web Site (*https://dialog1.roche.com/*) and choose the eLabDoc link.
If you are unable to access Roche DiaLog, contact a Roche Service representative.

Compliance with the applicable directives is provided by means of the Declaration of Conformity.

The following marks demonstrate compliance:

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c UL us	Issued by Underwriters Laboratories, Inc. (UL) for Canada and the US.
C SA US	Issued by CSA Group for Canada and the US.
Equipment de Laboratoire / Laboratory Equipment	'Laboratory Equipment' is the product identifier as shown on the type plate.

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Intended use

The **cobas**® 6800/8800 Systems support an automated and integrated workflow to run Polymerase Chain Reaction (PCR) based Nucleic Acid Testing (NAT).

The **cobas**® 6800/8800 Systems combine the functionalities of instrumentation, consumables, reagents, and data management to provide an efficient workflow from sample processing to result interpretation.

Symbols and abbreviations

Product names

Except where the context clearly indicates otherwise, the following product names and abbreviations are used.

Product name	Abbreviation
cobas omni Utility Channel Tool	utility channel software
cobas® 6800/8800 Systems	system

Product names

Symbols used in the publication

Symbol	Explanation
	Contact. Used in the User Assistance. Functionality currently unavailable.
	Code example. Used in code titles and cross-references to codes.
•	List item
	Tip. Extra information on correct use or useful hints.
	Related topics containing further information
	Figure. Used in figure titles and cross-references to figures.
	Table. Used in table titles and cross-references to tables.

Symbols used in the publication

Abbreviations

The following abbreviations are used.

Abbreviation	Definition
ANSI	American National Standards Institute
ASAP	Assay Specific Analysis Package
ASTM	American Society for Testing and Materials
CSA	Canadian Standards Association
DHCP	Dynamic Host Configuration Protocol

Abbreviations

Abbreviation	Definition
EC	European Community
EN	European Standard
GUID	Global Unique Identifier
HL7	Health Level 7
IEC	International Electrotechnical Commission
IG Server	Instrument Gateway
IHE	Integrating the Healthcare Enterprise
ISO	International Standards Organization
IVD	In vitro diagnostic
LIS	Laboratory Information System
LOINC	Logical Observation Identifiers Names and Codes
MLLP	Minimal Lower Layer Protocol
n/a	Not applicable
OSI	Open System Interconnection
QC	Quality Control
RMC	Roche Manufactured Control
TCP/IP	Transmission Control Protocol / Internet Protocol
UCAP	Utility Channel Analysis Package
UCUM	Unified Code for Units of Measure
UL	Underwriters Laboratories Inc.
UTC	Coordinated Universal Time

Abbreviations

What is new in publication version 1.10

New assay

The **cobas**® SCoV2 Var1 assay is now supported.

- Supported assays (96)
- Sample type, input volume, and pool sizes (97)
- Single target identifiers (99)
- Result types (102)
- Overall result codes (103)
- Result interpretation codes (105)
- Channel results (106)

What is new in publication version 1.9

New assay

The SCoV2-FluA/B assay is now supported.

- Supported assays (96)
- Sample type, input volume, and pool sizes (97)
- Single target identifiers (99)
- Result types (102)
- Overall result codes (103)
- Result interpretation codes (105)
- Channel results (106)
- Assay-specific result messages (109)

What is new in publication version 1.8

New sample type for SARS-CoV-2 assay

The following new sample type for the SARS-CoV-2 assay is now supported:

- COBAS PCR MEDIA SWAB
- Sample type, input volume, and pool sizes (97)
- Assay-specific result messages (109)

New sample type for BKV assay

The following new sample type for the BKV assay is now supported:

- URINE
- Sample type, input volume, and pool sizes (97)
- Assay-specific result messages (109)

What is new in publication version 1.7

New assay

The SARS-CoV-2 assay is now supported.

- Supported assays (96)
- Sample type, input volume, and pool sizes (97)
- Single target identifiers (99)
- Overall result codes (103)
- Result interpretation codes (105)
- Channel results (106)
- Assay-specific result messages (109)

What is new in publication version 1.6

Major changes are the following:

Results with Ct values

An additional scenario is supported for the sending of Ct values in OBX-5 of the supplementary OBX segment.

- Sending Ct values (176)
- OBX-5 segment for reactive target result and invalid IC (180)

What is new in publication version 1.5

A disclaimer has been added stating that some of the assays mentioned in this document may not be approved for distribution in all countries.

- Disclaimer (4)

What is new in publication version 1.4

Major changes are the following:

New assays

The Babesia, BKV, and EBV assays are now supported.

- Supported assays (96)
- Sample type, input volume, and pool sizes (97)
- Single target identifiers (99)
- Overall result codes (103)
- Result interpretation codes (105)
- Channel results (106)

Example result messages

Example result messages are provided for the Babesia, BKV, and EBV assays.

- Babesia examples (109)
- BKV examples (164)
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What is new in publication version 1.3

Major changes are the following:

New assay

The MTB-RIF/INH assay is now supported.

- Supported assays (96)
- Sample type, input volume, and pool sizes (97)
- Single target identifiers (99)
- Overall result codes (103)
- Result interpretation codes (105)
- Channel results (106)

Example result messages

Example result messages are provided for the MTB-RIF/INH assay:

- MTB-RIF/INH examples (136)

What is new in publication version 1.2

Major changes are the following:

New sample types

The sample types RAW SPUTUM and SEDIMENT are now supported.

- Sample types (95)

New assays

The assays MTB and MAI are now supported.

- Supported assays (96)
- Sample type, input volume, and pool sizes (97)
- Single target identifiers (99)
- Overall result codes (103)
- Result interpretation codes (105)
- Channel results (106)

Example result messages

For the MTB and MAI assays, a number of example result messages are provided.

- MTB examples (134)
- MAI examples (138)

Time code clarification

HL7 field descriptions now state whether time stamps within messages indicate local time or UTC (Coordinated Universal Time).

QPD-5 and QPD-6

QPD-5 (rack ID) and QPD-6 (position in rack) are now optionally supported.

› QPD - query parameter definition segment (50)

› Sending rack ID and position in rack (50)

TCD-2

The field TCD-2 contains the initial pool size.

› TCD - test code detail segment (48)

What is new in publication version 1.1

Major changes are the following:

Update of assays

The following changes have been made to the HPV-GT and HPV-HR assay.

- Additional support of RCCM sample type
- The assays no longer provide an overall result (`NA` in OBX-5 of the result interpretation OBX, and in OBX-8 of the overall result OBX)
- Update of example result messages of the 2 assays.

› Sample types (95)

› Overall result codes (103)

› Result interpretation codes (105)

› HPV-GT examples (140)

› HPV-HR examples (143)

What is new in software version 1.3

The following new features have been implemented in **cobas**® 6800/8800 Systems software version 1.3.

Non-Roche external controls

The use of non-Roche external controls requires no changes in the host interface configuration. The LIS handles non-Roche external controls like normal samples. Non-Roche external controls are identified by a prefix in the barcode.

Inventory information

Lot numbers and expiry dates of reagents and consumables used to generate the results are sent together with the test results in an INV segment.

› INV in OUL^R22 message (69)

› OUL^R22 (observation result) (79)

› Results with reagent and consumables (188)

Ct values

The system can send Ct values together with the test results in a supplementary OBX segment.

- OBX for sending Ct values (62)
- OUL^R22 (observation result) (79)
- About Ct values (176)

Assays with no overall result

For assays not supporting overall results, the system sends `NA` in OBX-5 of the result interpretation OBX, and also in OBX-8 of the overall result OBX.

- OBX in result message (54)
- Overall result codes (103)
- Result interpretation codes (105)

New assays

The following assays have been added.

- HIV-PSC
- TV
- MG
- TV/MG

- Assay-specific parameters (96)
- Result codes for OBX segment (102)
- Assay-specific result messages (109)

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Workflows

This chapter describes the workflow of communication between the **cobas**® 6800/8800 Systems and the LIS.

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Prerequisites

The connection between the system and the LIS is only established by the system. The LIS acts as the server.

Communication protocol

The system uses the HL7 protocol version 2.5 to communicate with the LIS. The ASTM protocol is not supported.

All HL7 communication between the system and the LIS must be ASCII code plain text.

Connection set-up

The system connects to the LIS through a Roche firewall. A Roche Service representative configures the firewall according to local customer network constraints.

The system is by default configured to connect to a LIS server on Port 3120. The system does not accept any incoming connections.

Firewall security policy authorizes communication only via pre-established IP addresses.

For more information about firewall configuration, refer to the *Software Installation Manual*.

Supported workflows

The system supports 4 basic workflows to communicate with the LIS.

Unsolicited test order submission

The LIS sends an unsolicited test order to the system.

Direction	HL7 message	LAB workflow	Reference
System←LIS	OML^O33	LAB-21 Test order	OML^O33 (75)
System→LIS	ORL^O34		ORL^O34 (76)

Test order download

Solicited test order submission

The system requests a test order from the LIS for each sample after sample recognition. The LIS sends the requested test order.

Direction	HL7 message	LAB workflow	Reference
System→LIS	QBP^Q11	LAB-22 Test order query	QBP^Q11 (77)
System←LIS	RSP^K11		RSP^K11 (78)
System←LIS	OML^O33	LAB-21 Test order	OML^O33 (75)
System→LIS	ORL^O34		ORL^O34 (76)

Test order query

Result upload

The system sends test results to the LIS.

Direction	HL7 message	LAB workflow	Reference
System→LIS	OUL^R22	LAB-23 Result	OUL^R22 (observation result) (79)
System←LIS	ACK^R22		ACK^R22/U03/U05/U14 (83)

Result upload

Test order delete notification

The system notifies the LIS when a test order is deleted.

Direction	HL7 message	LAB workflow	Reference
System→LIS	OUL^R22	LAB-23 Test order deletion	OUL^R22 (observation result) (79)
System←LIS	ACK^R22		ACK^R22/U03/U05/U14 (83)

Test order delete notification

Instrument status and capacity update

The system notifies the LIS about a status change of an instrument.

Direction	HL7 message	Workflow	Reference
System→LIS	INU^U05	System sends instrument name, state, and capacity	INU^U05 (85)
System←LIS	ACK^U05		ACK^R22/U03/U05/U14 (83)

Instrument status update

Instrument inventory request

The LIS requests a status update from all instruments connected to the system. For each instrument, the system returns a separate INR^U05 message containing instrument status and inventory.

Direction	HL7 message	Workflow	Reference
System←LIS	INR^U14	LIS requests state update from all instruments	INR^U14 (84)
System→LIS	ACK^U14		ACK^R22/U03/U05/U14 (83)
System→LIS	INU^U05	System returns instrument name, state, and inventory (1 INU^U05 message per instrument)	INU^U05 (85)
System←LIS	ACK^U05		ACK^R22/U03/U05/U14 (83)

Instrument inventory request

Sample tube location notification

The system notifies the LIS when a *sample tube* is loaded on, or unloaded from an analytic instrument or a pooling instrument.

Note: The system does not notify the LIS about the loading/unloading of a *pool tube*.

Direction	HL7 message	Workflow	Reference
System→LIS	SSU^U03	System sends instrument name, sample ID, and loaded/unloaded flag	SSU^U03 (86)
System←LIS	ACK^U03		ACK^R22/U03/U05/U14 (83)

Sample tube location notification

Test order process notification (no pooling)

The system notifies the LIS when the processing of an order has started, and when the processing has ended.

Direction	HL7 message	Workflow	Reference
System→LIS	OUL^R22	System sends instrument name, sample information, and process-start flag	OUL^R22 (order tracking) (81)
System←LIS	ACK^R22		ACK^R22/U03/U05/U14 (83)
System→LIS	OUL^R22	System sends instrument name, sample information, and process-end flag	OUL^R22 (order tracking) (81)
System←LIS	ACK^R22		ACK^R22/U03/U05/U14 (83)

Test order process notification (no pooling)

Test order process notification (with pooling)

The system notifies the LIS about the following 2 events:

- The primary sample is pooled for the first time (primary pool).
- The final result is assigned to the primary sample inside the pool.

Note: The system does not send a message for the creation of secondary or resolution pools, or when the pool tube is processed on the instrument.

Direction	HL7 message	Workflow	Reference
System→LIS	OUL^R22	System sends instrument name, sample information, and pooling-start flag	OUL^R22 (order tracking) (81)
System←LIS	ACK^R22		ACK^R22/U03/U05/U14 (83)
System→LIS	OUL^R22	System sends instrument name, sample information, and pooling-end flag	OUL^R22 (order tracking) (81)
System←LIS	ACK^R22		ACK^R22/U03/U05/U14 (83)

Test order process notification (with pooling)

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HL7 transport protocol

This chapter provides a brief overview on HL7 and describes the HL7 Minimal Lower Layer Protocol.

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2 HL7 transport protocol

About HL7

HL7 is an ANSI accredited organization dedicated to developing standards for the exchange of electronic health information. The organization's goal is to improve the interoperability of software applications used by the health care industry.

HL7 standards

In regular meetings called HL7 Work Group, HL7 members discuss and document how healthcare-related information should be exchanged between disparate healthcare applications.

HL7 is the most acknowledged standard in the healthcare industry for exchanging health information among disparate healthcare systems. HL7 currently considers the following as its primary standards based on their widespread use.

- **Version 2.x and Version 3 Messaging Standard** – interoperability specifications for health and medical transactions.
- **Clinical Document Architecture (CDA)** – an exchange model for clinical documents, based on HL7 Version 3.
- **Continuity of Care Document (CCD)** - a US specification for the exchange of medical summaries, based on CDA.
- **Structured Product Labeling (SPL)** – specifications for the published information that accompanies a medicine, based on HL7 Version 3.
- **Clinical Context Object Workgroup (CCOW)** – an interoperability specification for the visual integration of user applications.

For more detailed information about HL7 standards, refer to `www.hl7.org`.

OSI model

In the OSI model of the ISO, the functions of both communication software and hardware are separated into 7 layers, or levels.

The "7" in HL7 refers to the seventh, or application, layer of the OSI model. The application layer serves as the work area for users to access network services. It includes commonly needed functions including:

- Remote file access
- Supply sharing
- Network management
- Directory services
- Remote printer access
- Electronic messaging (e.g. email)
- Network virtual terminals

The HL7 standards provide definitions for the data to be exchanged, the timing of the data exchanges, and the communication of application-specific errors between the applications.

Limitations

HL7 does not provide or support the following functionality.

- *Security* - HL7 does not provide for the enforcement of the user's security policies. In addition, HL7 does not specify a specific encryption method.
- *Confidentiality* - HL7 does not address this issue and makes no assumption about the use of the data at the source or destination of a message.
- *Accountability* - HL7 does not define transaction processing features needed in the user's environment.

⚠ WARNING

Unauthorized access to confidential data

The HL7 version supported by the system does not provide any integrity protection and encryption beyond TCP-mediated control of data flow. The connection is therefore vulnerable to unauthorized access.

- ▶ Ensure that the connection is secured and protected against unauthorized access (physical access protection, network security).
- ▶ Restrict physical access to the system.
- ▶ Read the respective safety information on data security provided along with this product.

⚠ WARNING

Disclosure of confidential data

Unauthorized users can view confidential data in an HL7 message when entered as unencrypted (plain) text.

- Do not enter any confidential data as plain text.
- Restrict physical access to the system.
- Read the respective safety information on data security provided along with this product.

Minimal Lower Level Protocol

The Minimal Lower Layer Protocol (MLLP) is the most common standard for transmitting HL7 messages via TCP/IP over a local network.

A wrapping protocol is required to identify the start and the end of an HL7 message because TCP/IP is a continuous stream of bytes.

When using MLLP, an HL7 message is sent in one block. A header and a trailer wrap the message block to mark its beginning and end. Headers and trailers are not part of the message's content.

```
<Start block>Data<End block><CR>
```

<Start block>	Start block character (1 byte) ASCII <VT>, i.e. <0x0B>. Do not confuse with the ASCII characters SOH or STX.
Data	Data (variable number of bytes) can contain any displayable ASCII characters and the carriage return character <CR>.
<End block>	End block character (1 byte) ASCII <FS>, i.e. <0x1C>. Do not confuse with the ASCII characters ETX or EOT.
<CR>	Carriage Return (1 byte) The ASCII carriage return character, i.e. <0x0D>.

Sending mode

The system sends one message at a time via a single connection.

- *Sequential sending:* After sending a message, the system waits for the ACK from the host. If the host does not reply within 30 sec, the system marks the message as "*transmission failed*" and sends the next message.
- *Parallel sending:* By default, the system sends messages one after the other without waiting for the individual ACKs as long as 5 or less ACKs are pending. If 5 ACKs are pending, the system must wait for an ACK before sending the next message.

  If you wish to change the default sending mode, talk to your Roche Service representative.

HL7 elements

This chapter describes the HL7 elements that define a message.

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About HL7 elements

Data in an HL7 message is organized hierarchically.

Message
Segment
Field
Component
Subcomponent

HL7 hierarchy

Message

HL7 defines different types of messages for specific purposes. A message is defined as an entire unit of data transmitted between sender and receiver. HL7 messages are written by a non-XML based language. A message is trigger by a real event which generates a workflow (e.g. availability of a test result to be sent to the LIS).

Segment

Each line of an HL7 message is a segment. Segments can be required or optional, and occur only once or repeatedly in a message. Each segment starts with a 3-character string (ID) that defines the segment type. The ID contains only printable characters (ASCII 32–126).

Field

Each segment consists of fields. A field contains information about the purpose of the segment. Fields may be required, optional, or conditional, and may occur only once or repeatedly.

Component and subcomponent

Fields are subdivided into components that refer to a logical set of characters within a field. Components can be further divided into subcomponents.

Delimiters

Encoding characters, or delimiters, define how data is separated in an HL7 message. The following delimiters are supported as specified in the MSH segment.

Delimiter	Function
|	Separates fields
^	Separates components
&	Separates subcomponents
~	Separates repetitions
\	Indicates the escape character

HL7 delimiters

Data type

HL7 data types define the type of data that can be included in a field. A data type may contain additional data types that are referenced as components or subcomponents. 2–3 letter codes are used to specify the data type. Supported data types by the system are listed below.

Data type	Description
CE	Coded Element
EI	Entity Identifier
EIP	Entity Identifier Pair
ID	Coded Values for HL7 tables
NA	Numeric Array
NM	A numeric value. Positive (+) or negative (-) is indicated before the numeric value. If it is not indicated, it is treated as positive (+). If a decimal point is not included, the numeric value is treated as an integer. There are no restrictions for placing '0' in the front or for multiple '0' placed at the end of numbers with decimal points.
ST	An alphanumeric string with a maximum length of 199 if not otherwise stated.
TS	Time Stamp. The default format is YYYYMMDDHHMMSS • YYYY is the four-digit Gregorian year • MM is the month • DD is the day. • HH is the hour, as 24-hour military time. • MM is the minute. • SS is the second. For example, 11:53 a.m. and 3 seconds, on September 5, 2015 is indicated 20150905115303.
TX	Text Data
XCN	Extended Composite ID Number and name for persons

HL7 data types

Transmitting the null value

The "null" value is transmitted as 2 double quote marks (""), which is relevant when a message is sent to update a record. If no value is sent (i.e. omission of an optional field), the old value remains unchanged. If the null value is sent, the old value is changed to null (zero).

Color-coding

This publication visualizes the directionality of HL7 messages or message elements by different colors as illustrated below:

```
Incoming message (system<-LIS)
```

```
Outgoing message (system->LIS)
```

```
Message with unspecified directionality
```

HL7 cardinality and usage

Both cardinality and usage determine the appearance of HL7 elements (segment, field, component) in a message.

Cardinality

Cardinality identifies the minimum and maximum number of repetitions for a particular HL7 element (segment group, segment, or field). Cardinalities are expressed as a minimum-maximum pair of non-negative integers.

Value	Description
[0..0]	Element is never present.
[0..1]	Element may be omitted and can have at most 1 occurrence.
[1..1]	Element must have exactly 1 occurrence .
[0..n]	Element may be omitted or may repeat up to n times.
[1..n]	Element must appear at least once and may repeat up to n times.
[0..*]	Element may be omitted or repeat for a non-specified number of times ,
[1..*]	Element must appear at least once, and may repeat for a non-specified number of times.

HL7 cardinality

Usage

Usage further defines the circumstances under which an element appears in a message. Some elements must always be present, others may never be present, and others may only be present under certain circumstances. The following codes are used to define the usage of an element.

Value	Description
R	Required
RE	Required but may be empty
O	Optional
C	Conditional
CE	Conditional but may be empty
-	Not supported

HL7 usage

In addition, square and curly brackets are used to indicate appearance and repetition of segments and segment blocks in the HL7 message structure trees.

Value	Description
[..]	0 or 1 occurrence
{..}	1 or multiple occurrences
[{..}]	0 or multiple occurrences

fields that are not supported by the system, are omitted in the following segment tables.

MSH – message header segment

The MSH segment defines intent, source, destination, and some syntax specifications of a message.

MSH in incoming messages (LIS→system)						
Field	**Component**	**Element Name**	**Data Type**	**Usage**	**Maximum Length**	**Description**
MSH-1		Field Separator	ST	R	1	The character specified in MSH-1 defines the field separator to be used for the rest of the message. The value is: | (ASCII 124).
MSH-2		Encoding Characters	ST	R	4	The field contains the 4 delimiters in the following order: component separator, repetition separator, escape character, and subcomponent separator. The required values are: `^~\&` (i.e. ASCII 94, 126, 92, and 38).
MSH-3		Sending Application	ST	O	227	The field uniquely identifies the sending application. The LIS server defines its content.
MSH-4		Sending Facility	ST	O	227	HL7 does not specify any values for MSH-4. The system does not process the content of this field.
MSH-5		Receiving Application	ST	O	227	The field uniquely identifies the receiving application. The LIS server defines its content.
MSH-6		Receiving Facility	ST	O	227	HL7 does not specify any values for MSH-6. The system does not process the content of this field.
MSH-7		Date/Time of Message	TS	O	24	Date/time when the sending system created the message. Supported format: `YYYYMMDDHHMMSS`. No time zone is specified.
MSH-9		Message Type	ST	O	15	Defines the type of message and trigger event (e.g. ORL^O34)
	Message Type^Event Type^Message Structure					
	MSH-9.1	Message Type	ST	O		The field defines the message type (see HL7 table 0076). The system supports the following values: • `ACK` = General acknowledgment message • `OML` = Laboratory order message • `RSP` = Segment pattern response • `INR` = Automated equipment inventory request message
	MSH-9.2	Event Type	ST	O		The event type defines the code for the trigger event (HL7 table 0003). The system supports the following values: • `K11` = RSP - Segment pattern response in response to QBP^Q11 • `Q11` = QBP - Query by parameter requesting an RSP segment pattern response • `R22` = OUL - Unsolicited sample Oriented Observation Message • `O33` = OML - Laboratory order for multiple orders related to a single sample • `O34` = ORL - Laboratory order response message to a multiple order related to single sample OML • `U03` = SSU/ACK - sample status update • `U05` = INU/ACK - Automated equipment inventory update • `U14` = Automated equipment inventory request
	MSH-9.3	Message Structure	ID	O		This field is ignored.

MSH - message header segment

MSH in incoming messages (LIS→system)						
Field	**Component**	**Element Name**	**Data Type**	**Usage**	**Maximum Length**	**Description**
MSH-10		Message Control ID	ST	R	199	The field contains a number or identifier that uniquely identifies the message. The receiving system return this ID to the sending system in the MSA segment. The system uses a GUID as identifier.
MSH-12		Version ID	NA	R	3	The field specifies the version of the HL7 standard used in constructing, interpreting, and validating the messages. The implemented version is 2.5.
MSH-18		Character Set	ST	R	5	The field defines the character set used in the entire message: ASCII (e.g. `UNICODE UTF-8`).
MSH-21		Message Profile Identifier	EI	C	427	This field is used to assess adherence to a message profile. If the
	MSH-21.1					Supported values: • In INR^U14 message: `ROC-03` (fixed value) • In ACK messages: returns value received in original message • Empty in all other messages received from the LIS.
	MSH-21.2					Supported values: • In INR^U14 message: `ROCHE` (fixed value) • In ACK messages: returns value received in original message • Empty in all other messages received from the LIS.

MSH - message header segment

```
MSH|^~\&|LIS|LIS Facility|COBAS6800/8800|Lab|20160615125920||INR^U14^INR_U14|27f4d497-185b-425c-93f3-fa19a0689e37|P|2.5||||||ASCII |||ROC-03^ROCHE
```

MSH segment in INR^U14 message

MSH in outgoing messages (system→ LIS)						
Field	**Component**	**Element Name**	**Data Type**	**Usage**	**Maximum Length**	**Description**
MSH-1		Field Separator	ST	R	1	The character specified in MSH-1 defines the field separator to be used for the rest of the message. The value is: `|` (ASCII 124).
MSH-2		Encoding Characters	ST	R	4	The field contains the 4 delimiters in the following order: the component separator, repetition separator, escape character, and subcomponent separator. The required values are: `^~\&` (ASCII 94, 126, 92, and 38).
MSH-3		Sending Application	ST	R	227	The name of the sending application is `COBAS6800/8800`.
MSH-5		Receiving Application	ST	R	3	The name of the receiving application is `LIS`.
MSH-7		Date/Time of Message	TS	R	24	Date/time when the sending system created the message. Supported format: `YYYYMMDDHHMMSS`. No time zone is specified.

MSH - message header segment

MSH in outgoing messages (system→ LIS)						
Field	**Component**	**Element Name**	**Data Type**	**Usage**	**Maximum Length**	**Description**
MSH-9		Message Type	ST	R	15	Defines the type of message and trigger event (e.g. ORL^O34)
	Message Type^Event Type^Message Structure					
	MSH-9.1	Message Type	ST	R		The field defines the message type (see HL7 table 0076). The system supports the following values: • INU = Automated equipment inventory update message • ORL = Laboratory acknowledgment message (unsolicited) • OUL = Unsolicited laboratory observation message • QBP = Query by parameter • SSU = Specimen status update message
	MSH-9.2	Event Type	ST	R		The event type defines the Code for the trigger event (HL7 table 0003). The system supports the following values: • K11 = RSP - Segment pattern response in response to QBP^Q11 • Q11 = QBP - Query by parameter requesting an RSP segment pattern response • R22 = OUL - Unsolicited sample Oriented Observation Message • O33 = OML - Laboratory order for multiple orders related to a single sample • O34 = ORL - Laboratory order response message to a multiple order related to single sample OML • U03 = SSU/ACK - sample status update • U05 = INU/ACK - Automated equipment inventory update • U14 = Automated equipment inventory request
	MSH-9.3	Message Structure	ID	R		The system supports the following values: • INU_U05 • SSU_U03 • OUL_R22 (only used in test order status notifications; MSH-9.3 is empty in result and delete order messages) **Note:** The field is empty in all other messages the system sends to the LIS.
MSH-10		Message Control ID	ST	R	199	The field contains a number or identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the MSA segment.The system uses a GUID as identifier.
MSH-11		Processing Mode	ST	R	1	The field indicates whether the message is processed according to HL7 Application (level 7) Processing rules. Default value for sending messages is: • P = Production
MSH-12		Version ID	NA	R	3	The field specifies the version of the HL7 standard used in constructing, interpreting, and validating the messages. The implemented version is 2.5.
MSH-18		Character Set	ST	R	5	The field defines the character set used in the entire message: ASCII (e.g. UNICODE UTF-8).

MSH - message header segment

MSH in outgoing messages (system→ LIS)						
Field	**Component**	**Element Name**	**Data Type**	**Usage**	**Maximum Length**	**Description**
MSH-21		Message Profile Identifier	EI	C	427	This field is used to assess adherence to a message profile.
	MSH-21.1					Supported values: • In INU^U05 message: `ROC-04` • In SSU^U03 message: `ROC-05` • In OUL^R22 message: `ROC-06` **Note:** In OUL^R22 messages, MSH-21 is only used for the tracking of orders. In result and test order deletion messages, the field is not used. • In ACK messages: returns value received in original message • Empty in all other messages
	MSH-21.2					Supported values: • In INU^U05, message: `ROCHE` • In SSU^U03 message: `ROCHE` • In OUL^R22 message: `ROCHE` **Note:** In OUL^R22 messages, MSH-21 is only used for the tracking of orders. In result and test order deletion messages, the field is not used. • In ACK messages: returns value received in original message • Empty in all other messages

MSH - message header segment

```
MSH|^~\&|COBAS6800/8800||LIS||20161124110024||INU^U05^INU_U05|8898644c-732d-451c-817f-
73cffb8dc50b|P|2.5|||||ASCII|||ROC-04^ROCHE
```

MSH segment in INU^U05 message

SPM – sample segment

The SPM segment describes the characteristics of a sample. It generalizes the multiple relationships among orders, results, samples, and sample containers.

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
SPM-2		Sample ID	EIP	R	R	100	Sample ID / tube barcode Usage of this field is not according to HL7 standards because the system does not support SPM-2.2.
SPM-4		Sample Type	ST	R	R	705	The field describes the precise nature of the entity that is the source material for the observation. For all possible sample types, see Sample types (95) For currently supported sample types, see Assay-specific parameters (96) If the sample is a control, the value is `NULL`.
	Identifier^Text^Name						
	SPM-4.1	Identifier	ST	R	R		Code for sample type
	SPM-4.2	Text	ST	R	R		Textual description of sample type
	SPM-4.3	Name of Coding System	ID	R	R		Assay-specific parameters (96)
SPM-11		Sample Role	ST	R	R	1	The content of the field depends on the sample type defined in SPM-4. Supported value in incoming messages (LIS→system): • `P` = Sample Supported values in outgoing messages (LIS←system): • `P` = Sample • `Q` = Control

SPM - sample segment

```
SPM|1|C1614202840903906711931|NULL|||||||Q|||||||||||||||
```

SPM segment

SAC – sample and container detail segment

The SAC segment contains the data necessary to maintain the containers that are being used throughout the Laboratory Automation System.

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
SAC-2		Secondary Sample ID	ST	O	O	427	Usage of this field is not according to HL7 standards. SAC-2 is a free-text field for the customer. The system returns the value as received from the sending application.
SAC-3		Accession Identifier	ST	-	C	80	Sample ID/tube barcode This field is only used in the SSU^U03 message.
SAC-8		Container Status	CE	-	O	250	This field identifies the status of the container containing the sample at the time that the transaction was initiated. This field is only used in the SSU^U03 message
	Identifier^^Name of Coding System						
	SAC-8.1	Identifier	ST				Container status code Supported values: • `I` = Identified (sample loaded on instrument) • `L` = Left Equipment (sample unloaded from instrument)
	SAC-8.2	Not supported					Not supported
	SAC-8.3	Name of Coding System	ID				Fixed value = `HL70370`
SAC-21		Process Input Volume	NM	R	R	20	Usage of this field is not according to HL7 standards. The system uses SAC-21 to specify the value of the process input volume. The unit of the volume is specified in SAC-24. The volume depends on assay and sample type. Assay-specific parameters (96) This field is empty in the SS^U03 message.

SAC - sample segment

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
SAC-24		Volume Units	CE	R	R	8	The field specifies the unit for the process input volume. • The volume unit must be set to microliter in UCUM standard. • The default unit according to HL7 standards is milliliters, which should be assumed if no units are reported. This field is empty in the SS^U03 message.
	Identifier^^Name of Coding System						
	SAC-24.1	Identifier	ST	R	R		UCUM coded unit of measure. The value is `uL`.
	SAC-24.1	Not used					
	SAC-24.3	Name of Coding System	ST	R	R		The value is `UCUM`.

SAC - sample segment

```
SAC|||$00KHR4HF|||||L^^HL70370
```

SAC segment in SSU^U03 message

```
SAC|||||||||||||||||||||||850|||uL^^UCUM
```

SAC segment in OUL^R22 (result) message

OBR - observation order segment

The OBR segment identifies the type of tests to be performed on the sample and ties that information to the test order.

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
OBR-1		Set ID - OBR	ST	R	R	1	Sequence number that identifies the numbers of OBR segments (1 for the first OBR, 2 for the second, and so on). The value is always 1 because the system supports only 1 OBR segment.
OBR-2		Place Order ID	ST	R	R	50	The field is empty or contains the placer order number if sent by the LIS in the unsolicited test order (OML^O33). For all follow-up messages to the test order, the system returns the initial value received from the LIS.
OBR-4		Universal Service Identifier	ST	R	R	705	The field contains the observation order ID identifying the test order type. The system treats OBR-4 as a single ID and does not validate the 3 components individually. For supported codes, see Assay-specific parameters (96)
	Identifier^Test^Name of Coding System						
	OBR-4.1	Identifier	ST	R	R		OBR-4.1 is the LOINC code. For supported codes, see Assay-specific parameters (96)
	OBR-4.2	Test	ST	R	R		For supported codes, see Assay-specific parameters (96)
	OBR-4.3	Name of coding system	ID	R	R		For supported codes, see Assay-specific parameters (96)
OBR-11		Sample Action Code	ST	-	R	1	The field specifies the action to be taken concerning the samples that accompany or precede an order. It further qualifies the general action indicated by the order control code contained in the accompanying ORC segment. When the system sends an ORL-O34 message to accept a test order, or an OUL-R22 message to send a test order status update, OBR-11 contains the following code: • A = Assign ordered tests to the existing sample If the system sends a test result or a delete order with an OUL^R22 message, OBR-11 is empty.

OBR - observation order segment

```
OBR|1|||74856-6^MPX^LN|||||||A
```

OBR segment in ORL^O34 message

```
OBR|1|||74856-6^MPX^LN
```

OBR segment in OML^O33 message

TCD – test code detail segment

The TCD segment contains the data necessary to perform operations or calculations, or execute decisions by the laboratory automation system.

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
TCD-1		Universal Service Identifier	ST	R	R	705	The field identifies the test code that information is being transmitted about. The system treats TCD-1 as a single ID and does not validate the 3 components individually. For supported values, see Assay-specific parameters (96)
	Identifier^Test^Name of Coding System						
	TCD-1.1	Identifier	ST	R	R		TCD-1.1 is the LOINC code. For supported codes, see Assay-specific parameters (96)
	TCD-1.2	Test	ST	R	R		For supported codes, see Assay-specific parameters (96)
	TCD-1.3	Name of coding system	ID	R	R		For supported codes, see Assay-specific parameters (96)
TCD-2		Pool Size	ST	R	R	8	Usage of this field is not according to HL7 standards. The system uses TCD-2 instead to define the initial pool size. The instrument can combine (pool) multiple samples and then perform a common test on this mixture (pool). TCD-2 indicates the maximal size of the pool in which the sample was participating.
	^1^:^Pool Size						
	TCD-2.1	Not used					
	TCD-2.2	Num1		NM	R		Fixed value = `1`
	TCD-2.3	Separator		ST	R		Fixed value = `:`
	TCD-2.4	Num2		NM	R		• Pool size = `0`: pooling not possible. The sample is directly loaded on the analytic instrument. • Pool size = `1`: sample can be aliquoted on the pooling instrument or directly loaded on the analytic instrument. • Pool size > `1`: defines the pool size. Only sample type `plasma` can be pooled. For supported pool sizes, see Assay-specific parameters (96)

TCD - test code detail segment

```
TCD|74856-6^MPX^LN|^1^:^0
```

TCD segment

ORC – common order segment

The ORC segment is used to transmit fields that are common to all orders.

The ORC segment is required in incoming test orders (OML^O33), and in the outgoing response for an released test order (ORL^O34).

Field	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
ORC-1	Order Control	ST	R	-	2	The field defines the function of the order segment. In incoming test orders, the supported value is: • `NW` = New Order
ORC-5	Order Status	ST	-	R	2	The field specifies the status of an order. It reports the status of an order either upon request (solicited), or when the status changes (unsolicited). It does not initiate action. The order status is assumed to reflect the status as it is known to the sending application at the time the message is sent. In outgoing test orders, the supported value is: • `IP` = In Process
ORC-9	Date/Time of Transaction	TS	-	R	24	The field contains the date and time (local time) of the event that initiated the current transaction as reflected in ORC-1. The field is not equivalent to MSH-7, which reflects the date/time of the physical message. Supported format: `YYYYMMDDHHMMSS`

ORC - common order segment

```
ORC|NW
```

ORC segment in OML^O33 message

```
ORC|||||IP||||20160728164540
```

ORC segment in ORL^O34 message (time stamp in ORC-9 shows local time)

QPD – query parameter definition segment

The QPD segment contains the name of the query.

QPD is required in outgoing QBP^Q11 messages sent to the LIS. Although required by HL7, the system ignores the content of QPD in incoming RSP^K11 messages sent by the LIS.

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
QPD-1		Query Message Name	ST	R	250	The field contains the name of the query. The content must be `WPS^Work·Order·Step^IHE_LABTF` to indicate the use of the IHE Laboratory Technical Framework profile.
	Identifier^Text^Name of Coding System					
	QPD-1.1	Identifier	ST	R		Fixed value = `WOS`
	QPD-1.2	Text	ST	R		Fixed value = `Work·Order·Step`
	QPD-1.3	Name of Coding System	ID	R		Fixed value = `IHE_LABTF`
QPD-2		Query Tag	ST	O	32	The system populates QPD-2 with a query tag (random ID) when requiring an order from the LIS. The LIS reflects this tag in an RSP^K11 message but the system ignores its content.
QPD-3		Sample Identification	EIP	R	100	QPD-3 is used for sample identification and is matched against SPM-2 (Sample ID).
QPD-5		Rack ID	ST	O	128	QPD-5 is used to identify the RD5/MPA rack ID. This field is a Roche-specific field.
QPD-6		Position in the Rack	NM	O	1	QPD-6 identifies the position of the sample in the rack. Possible values: 1, 2, 3, 4, or 5. This field is a Roche-specific field.

QPD - query definition segment

Sending rack ID and position in rack

By default, the option to send rack ID and the position of the sample within the rack to the host/LIS is disabled. To enable this option, contact your Roche Service representative or the supervisor.

When the option is enabled, the system sends the rack ID and the position of the sample tube within the rack to the host/LIS together with the sample identification, as shown in the second example below.

```
QPD|WOS^Work Order Step^IHE_LABTF||$00KHPPK2|||
```

QPD segment in QBP^Q11 message with option to send rack ID (including sample position on rack) disabled.

```
QPD|WOS^Work Order Step^IHE_LABTF||$00KHPPK2||1548
|1
```

QPD segment in QBP^Q11 message with option to send rack ID (including sample position on rack) enabled.

MSA – message acknowledgement segment

The MSA segment contains information sent while acknowledging another message.

Field	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
MSA-1	Acknowledgement Code	ST	R	R	2	The field contains an acknowledgment code. Refer to HL7 table 0008. The system supports the following codes: • `AA` = Application Accept • `AR` = Application Reject
MSA-2	Message Control ID	ST	R	R	199	The field contains the message control ID sent by the sending system (i.e. the control ID of field MSH-10 of the original message). It allows the sending system to associate this response with the message for which it is intended.

MSA - message acknowledgement segment

```
MSA|AA|ee354736-52c3-4174-9145-35993a1716fa
```

MSA segment

QAK - query acknowledgement segment

The QAK segment contains information sent with responses to a query.

Field	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
QAK-2	Query Response Status	ID	R	-	2	The field allows the responding system to return a precise response status. The system supports the following codes: • AA = Application accept (not according to HL7) • AR = Application reject

QAK - query acknowledgement segment

```
QAK||AA
```

QAK segment

OBX – observation result segment

The OBX segment is used to transmit a single observation or observation fragment related to a single test (OBR) or sample (SPM). It is the smallest indivisible unit of a report.

In this section

OBX in result message (54)
OBX in delete test order message (58)
OBX in test order process notification (60)
OBX for sending Ct values (62)

OBX in result message

The observation result segment (OBX) segment is used to transmit a single observation or observation fragment related to a single test (OBR) or sample (SPM). It is the smallest indivisible unit of a report.

When the system sends a result in a OUL^R22 message, each OBX segment contains the following structure.

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-1		Set ID - OBX	SI	R	4	The field contains the sequence number of the OBX element in the message. • Values range from 1 to 9999
OBX-2		Value Type	ID	R	2	The field contains the format of the observation value in OBX-5. Supported values: • `NM` = Numeric (OBX-5 contains a numeric result) • `ST` = String (OBX-5 contains a non-numeric result) • Empty if result is invalid
OBX-3		Observation Identifier	CE	R	705	The system treats OBX-3 as a single ID and does not validate the 3 components individually. • For an overall result or result interpretation, this field contains the Universal Service Identifier. • For a channel result, this field contains the single channel identifier. ▸ Values are assay-specific, see Result codes for OBX segment (102)
	Identifier^Test^Name of Coding System					
	OBX-3.1	Identifier	ST	R		
	OBX-3.2	Test	ST	R		
	OBX-3.2	Name of coding system	ID	R		

OBX - observation result segment

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-4		Observation Sub-ID	ST	C	20	The field is used to distinguish between multiple OBX segments with the same observation ID organized under one OBR. It is applicable to overall results and result interpretations. Supported values are: • `1/1` = overall result • `1/2` = result interpretation • Empty = channel result
OBX-5		Observation Value	ST/NM	R	24	Supported data types: • `ST` for qualitative assay • `NM` for quantitative assay Supported values for overall results: • `ValueNotSet` • Empty if result is invalid Supported values for result interpretations: • `Invalid` • `Valid` • `Positive` • `Negative` • `Reactive` • `Non-Reactive` • `Target Not Detected` • `Titer` • `> Titer max` • `< Titer min` • `UC_Positive` • `UC_Negative` • `NA` (not applicable, sent for assays that do not generate an overall result) Supported values for channel results: • `ValueNotSet` • For numeric results, the value contains the 3 significant digits of the value represented with precision of 3. • Empty if result is invalid For assay-specific codes, see Result codes for OBX segment (102)
OBX-6		Units	CE	R	705	The field defines the exponent to the base 10 that is multiplied by the significant digits of the observation result according to the formula: [OBX-5] * 10 [OBX-6]. The exponent is reported together with the unit. The ASAP allows the following 2 strings: • `10*exponent.[iU]/mL^^UCUM` • `10*exponent.{Copies}/mL^^UCUM` • Empty for qualitative assays
	Identifier^^Name of Coding System					
	OBX-6.1	Identifier	ST	R		The ASAP supports the following 2 values: • `10*exponent.[iU]/mL` • `10*exponent.{Copies}/mL` `Exponent` is replaced with a number equal to the scientific notation of numbers.
	OBX-6.2	Not used				
	OBX-6.3	Name of Coding System	ID	R		Defines the unit. Fixed value = `UCUM`

OBX - observation result segment

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-8		Interpretation Code	ST	R	5	The field is used in combination with OBX-11 to notify the status of the results. One or more codes or errors flags can be used (e.g. `SysError~UserError`). Supported values are dynamic and depend on the implemented ASAP. For current values, see Result codes for OBX segment (102) For supported error flags for invalid results, see Error flags (192)
OBX-11		Observation Result Status	ST	R	1	The field is used in combination with OBX-8 to notify the status of the results. The system supports the following values: • `F` = Final and valid result • `X` = No results can be obtained for this observation For result interpretations and overall results, “F” is sent if one of the following 2 conditions is true: 1. Result state is “Valid” 2. Result state is “NotDefined”, and no final flag is assigned to the result. If neither condition is true, “X” is sent.
OBX-16		Responsible Observer	XCN	R	36	The field identifies the individual directly responsible for the observation.
OBX-18		Equipment Instance Identifier	EI	R	256	The field identifies the Equipment Instance (e.g., Analyzer, Analyzer module, group of Analyzers, etc.) responsible for the production of the observation. This field is repeated 3 times, showing a hierarchical representation of the equipment. The tilde (~) is the HL7 repetition delimiter.
	*C6800/8800^Roche^^~SerialID^Roche^^~ClusterID^Instrument-ID^^*					
	First iteration					
	OBX-18.1	Model Name	R	10	c6800/8800	
	OBX-18.2	Manufacturer	R	5	Roche	
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Second iteration					
	OBX-18.1	Serial ID	R	199	The value is `Unknown` if Serial ID is not specified.	
	OBX-18.2	Manufacturer	R	5	Roche	
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Third iteration					
	OBX-18.1	Cluster ID	R	199	Cluster Identification	
	OBX-18.2	Instrument ID	R	20	Instrument Identification	
	OBX-18.3	Not used				
	OBX-18.4	Not used				

OBX - observation result segment

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-19		Date/Time of the Analysis	TS	R	24	The field is used to transfer the time stamp (UTC time) associated with the generation of the analytical result by the instrument specified in OBX-18. The format is `YYYYMMDDHHMMSS`
OBX-28		Negative and/or Positive Control Batch ID	CWE	O	63	The field contains information about the process control type. Example: `22_neg^^99ROC~68_pos^^99ROC`
	Identifier^^Name of Coding System>					
	OBX-28.1	Identifier	ST	R		Supported values are: • `_neg` = negative control batch • `_pos` = positive control batch
	OBX-28.2	Not used				
	OBX-28.3	Name of Coding System	ID	R		Name of the coding system is `99ROC`. The element can be empty or contain the negative repetition, the positive repetition, or both separated by the field repeat separator '~'.

OBX - observation result segment

```
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
```

Example for overall result (time stamp in OBX-19 shows UTC time)

```
OBX|5|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
```

Example for result interpretation (time stamp in OBX-19 shows UTC time)

```
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131648|||||||||8_neg^^99ROC
```

Example for channel result (time stamp in OBX-19 shows UTC time)

OBX in delete test order message

In a delete test order message, the OBX segment contains the following structure.

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-1		Set ID - OBX	SI	R	4	The field contains the sequence number of the OBX element in the message. • Values range from 1 to 9999 • For a single channel result, the value is always 1
OBX-3		Observation Identifier	CE	R	705	The system treats OBX-3 as a single ID and does not validate the 3 components individually. • For an overall result or result interpretation, this field contains the Universal Service Identifier. • For a channel result, this field contains the single channel identifier. Values are assay-specific, see Result codes for OBX segment (102)
	Identifier^Test^Name of Coding System					
	OBX-3.1	Identifier	ST	R		
	OBX-3.2	Test	ST	R		
	OBX-3.3	Name of coding system	ID	R		
OBX-8		User Canceled Flag	ST	R	5	Fixed value = `U04` See also Error flags (192)
OBX-11		Observation Result Status	ST	R	1	The field is used in combination with field OBX-8 to notify the status of the results. The system supports the following value: • `X` = No results can be obtained for this observation See also OUL^R22 (test order deletion) (80)
OBX-16		Responsible Observer	XCN	R	36	The field contains the name of the user who deleted the test order.

OBX - observation result segment

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-18		Equipment Instance Identifier	EI	R	256	The field identifies the Equipment Instance (e.g., Analyzer, Analyzer module, group of Analyzers, etc.) responsible for the production of the observation. This field is repeated 3 times, showing a hierarchical representation of the equipment. The tilde (~) is the HL7 repetition delimiter.
	C6800/8800^Roche^^~*SerialID*^Roche^^~*ClusterID*^*Instrument-ID*^^					
	First iteration					
	OBX-18.1	Model Name		R	10	c6800/8800
	OBX-18.2	Manufacturer		R	5	Roche
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Second iteration					
	OBX-18.1	Serial ID		R	199	The value is `Unknown` if Serial ID is not specified.
	OBX-18.2	Manufacturer		R	5	Roche
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Third iteration					
	OBX-18.1	Cluster ID		R	199	Cluster Identification
	OBX-18.2	Not used				
	OBX-18.3	Not used				
	OBX-18.4	Not used				
OBX-19		Date/Time of the Analysis	TS	R	24	The field is used to transfer the time stamp (UTC time) associated with the generation of the analytical result (i.e. deletion of the test order) by the instrument specified in OBX-18. The format is `YYYYMMDDHHMMSS`

OBX - observation result segment

```
OBX|1||74856-6^MPX^99ROC|||||U04|||X|||||p||C6800/8800^Roche^^~^Roche^^~ID_000000000012076380^^^|201
61130092623
```

OBX segment in delete test order message (time stamp in OBX-19 shows UTC time)

Related topics

- OUL^R22 (test order deletion) (80)

OBX in test order process notification

When the system sends an OUL^R22 message to update the LIS about the test order process, the OBX segment contains the following structure.

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-1		Set ID - OBX	SI	R	4	The field contains the sequence number of the OBX element in the message. Fixed value = `1`
OBX-2		Value Type	ID	R	2	The field contains the format of the observation value in OBX-5. Supported value: • `CE` = Code Entry
OBX-3		Observation Identifier	CE	R	705	The system treats OBX-3 as a single ID and does not validate the 3 components individually. • For an overall result or result interpretation, this field contains the Universal Service Identifier. • For a channel result, this field contains the single channel identifier. Values are assay-specific, see Result codes for OBX segment (102)
	PROCESS_STEP^^99ROC					
	OBX-3.1	Identifier	ST	R		Fixed value = `PROCESS_STEP`
	OBX-3.2	Test	ST	R		This component is empty.
	OBX-3.2	Name of coding system	ID	R		Fixed value = `99ROC`
OBX-5		Observation Value	Varies	R	99999	in test order process notification message, this field describes the status of the order process.
	OBX-5.1			R		Supported values: • `SAMP_TRANS_STARTED` = Sample transfer started • `CALC_FINISHED` = Calculation finished • `POOLINGWORKFLOW_STARTED` = Pooling workflow started • `POOLINGWORKFLOW_FINISHED` = Pooling workflow finished
	OBX-5.2	Not supported				
	OBX-5.3			R		Fixed value = `99ROC`
OBX-8		Interpretation Code		-		This field is empty.
OBX-11		Observation Result Status	ST	R	1	Supported values: • `I` = Incomplete (processing started, pooling workflow started • `R` = Result stored (processing finished, pooling workflow finished) Used codes are not according to HL7 standards.

OBX - observation result segment

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-16		Responsible Observer	XCN	R	36	Fixed value = AUTO
OBX-18		Equipment Instance Identifier	EI	R	256	The field identifies the Equipment Instance (e.g., Analyzer, Analyzer module, group of Analyzers, etc.) responsible for the production of the observation. This field is repeated 3 times, showing a hierarchical representation of the equipment. The tilde (~) is the HL7 repetition delimiter.
	*C6800/8800^Roche^^~SerialID^Roche^^~ClusterID^Instrument-ID^^*					
	First iteration					
	OBX-18.1	Model Name		R	10	c6800/8800
	OBX-18.2	Manufacturer		R	5	Roche
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Second iteration					
	OBX-18.1	Serial ID		R	199	The value is Unknown if Serial ID is not specified.
	OBX-18.2	Manufacturer		R	5	Roche
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Third iteration					
	OBX-18.1	Cluster ID		R	199	Cluster Identification
	OBX-18.2	Instrument ID		R	20	Instrument Identification
	OBX-18.3	Not used				
	OBX-18.4	Not used				
OBX-19		Date/Time of the Analysis	TS	R	24	Time stamp (UTC time) of processing in the format YYYYMMDDHHMMSS

OBX - observation result segment

```
OBX|1|CE|PROCESS_STEP^^99ROC|1|SAMPLE_TRANS_STARTED^^99ROC|||""|||I||||AUTO||cobas8800^Roche~sn12345
^Roche|20150130150001
```

OBX segment in test order process notification message (time stamp in OBX-19 shows UTC time)

OBX for sending Ct values

The system uses a supplementary OBX segment to send Ct values to the host.

For more information, see About Ct values (176).

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-1		Set ID - OBX	SI	R	4	Sequence number of the OBX segment, 1 number higher than sequence number of preceding OBX segment containing the observation result of the corresponding target.
OBX-2		Value Type	ID	R	2	The field contains the format of the observation value in OBX-5. Supported values: • NA = Numeric Array (OBX-5 contains an n-dimensional set of numeric values)
OBX-3		Observation Identifier	CE	R	705	
	*Identifier^Test^Name of Coding System^S_Other^Other Supplemental^IHELAW^*					
	OBX-3.1	Identifier	ST	R		Copy of value from OBX-3.1 of target OBX segment Result codes for OBX segment (102)
	OBX-3.2	Test	ST	R		Copy of value from OBX-3.2 of target OBX segment Result codes for OBX segment (102)
	OBX-3.3	Name of coding system	ID	R		Copy of value from OBX-3.3 of target OBX segment Result codes for OBX segment (102)
	OBX-3.4	Alternate identifier	CE	R		Fixed value: • S_OTHER
	OBX-3.5	Alternate text	CE	R		Fixed value: • Other Supplemental
	OBX-3.6	Name of alternate coding system	CE	R		Fixed value: • IHELAW
OBX-5		Observation Value	NA	R	24	This field contains the Ct values. Scenarios for Ct values (177) About Ct values (176).
	Target_Ct_value^IC_Ct_value^QS_Ct_value					
	OBX-5.1	Target Ct value	NA	O		Number with optional decimal point.No scientific notation.
	OBX-5.2	IC Ct value	NA	O		Number with optional decimal point.No scientific notation.
	OBX-5.3	QS Ct value	NA	O		Number with optional decimal point.No scientific notation.
OBX-11		Observation Result Status	ST	R	1	The field is used in combination with OBX-8 to notify the status of the results. The system supports the following values. • F = Final and valid result • X = No results can be obtained for this observation In the Ct OBX segment, a copy of OBX-11 from the target OBX segment is sent.
OBX-16		Responsible Observer	XCN	R	36	Copy of OBX-16 from the target OBX segment.

OBX - observation result segment

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
OBX-18		Equipment Instance Identifier	EI	R	256	The field identifies the Equipment Instance (e.g., Analyzer, Analyzer module, group of Analyzers, etc.) responsible for the production of the observation. This field is repeated 3 times, showing a hierarchical representation of the equipment. The tilde (~) is the HL7 repetition delimiter. In the Ct OBX segment, a copy of OBX-18 from the target OBX segment is sent.
	*C6800/8800^Roche^^~SerialID^*Roche^^*~ClusterID^Instrument-ID^^*					
	First iteration					
	OBX-18.1	Model Name		R	10	c6800/8800
	OBX-18.2	Manufacturer		R	5	Roche
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Second iteration					
	OBX-18.1	Serial ID		R	199	The value is `Unknown` if Serial ID is not specified.
	OBX-18.2	Manufacturer		R	5	Roche
	OBX-18.3	Not used				
	OBX-18.4	Not used				
	Third iteration					
	OBX-18.1	Cluster ID		R	199	Cluster Identification
	OBX-18.2	Instrument ID		R	20	Instrument Identification
	OBX-18.3	Not used				
	OBX-18.4	Not used				
OBX-19		Date/Time of the Analysis	TS	R	24	The field is used to transfer the time stamp (UTC time) associated with the generation of the analytical result by the instrument specified in OBX-18. The format is `YYYYMMDDHHMMSS`
OBX-28		Negative and/or Positive Control Batch ID	CWE	O	63	The field contains information about the process control type. Example: `22_neg^^99ROC~68_pos^^99ROC`
	Identifier^^Name of Coding System>					
	OBX-28.1	Identifier	ST	R		Supported values are: • `_neg` = negative control batch • `_pos` = positive control batch In the Ct OBX segment, a copy of OBX-28.1 from the target OBX segment is sent.
	OBX-28.2	Not used				
	OBX-28.3	Name of Coding System	ID	R		Name of the coding system is `99ROC`. The element can be empty or contain the negative repetition, the positive repetition, or both separated by the field repeat separator '~'. In the Ct OBX segment, a copy of OBX-28.3 from the target OBX segment is sent.

OBX - observation result segment

```
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_1
2076380^IM1000-1^^|20160601092157|||||||||228_neg^^99ROC~227_pos^^99ROC
```

```
OBX|2|NA|HAV^HAV^99ROC^S_OTHER^Other Supplemental^IHELAW||38.8^36.8^32.8||||||F|||||Supervisor||C680
0/8800^Roche^^~Unknown^Roche^^~ID_12076380^IM1000-1^^|20160601092157||||||||228_neg^^99ROC~227_pos^
^99ROC
```

Example of channel result OBX and supplementary OBX segment with Ct values (time stamp in OBX-19 shows UTC time)

Related topics

- Results with Ct values (176)

NTE - notes and comments segment

The NTE segment is used for sending notes and comments. It is part of in incoming tests orders (OML^O33), and outgoing results (OUL^R22).

Field	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
NTE-1	Set ID - NTE	NA	R	R	4	The field may be used where multiple NTE segments are included in a message. Their numbering must be described in the application message definition. The values range from 1 to 9999.
NTE-3	Comment	TX	R	R	65536	The field contains the comment contained in the segment. • A maximum of 255 characters are allowed in orders messages (OML^O33) • A maximum of 65536 characters are allowed in result messages (OUL^R22)

NTE- notes and comments segment

```
NTE|1||Comment
```

NTE segment

EQU – equipment detail segment

The EQU segment contains the data necessary to identify and maintain the equipment.

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
EQU-1		Equipment Instance Identifier	EI	R	R	22	This field identifies the equipment
	EQU-1.1	Entity Identifier	ST				Instrument ID
	EQU-1.2	Namespace ID	IS				Identifies the institution. Fixed value: `Roche`
EQU-2		Event Date/Time	TS	R	R	26	Time stamp (local time) of latest status change in the format `YYYYMMDDHHMMSS`
EQU-3		Equipment State	CE	R	R	250	This field identifies the status of the equipment at the time that the transaction was initiated. The system supports the following HL7 codes: • `RS` = Ready to start • `MA` = Maintenance • `OP` = Normal operation • `ES` = E-Stopped • `FL` = Failure • `UN` = Unknown To map the HL7 codes to the instrument state, see table below.

EQU - equipment detail segment

Analytic Instrument state	HL7 code
StandBy	RS
Maintenance/Service	MA
Ready/Running	OP
Paused	ES
State Error	FL
Offline	UN

Instrument status mapping

```
EQU|IM1000-009999^Roche|20160615125920
```

EQU segment (time stamp in EQU-2 shows local time)

INV – inventory detail segment

The INV segment is used to send inventory information in the following message types:

- In INU^U05 message: the system sends status/inventory from all instruments to the host.
- In OUL^R22 result message: The system sends lot numbers and expiry dates of controls, reagents, and consumables that were used to generate the results.

In this section

INV in INU^U05 message (67)
INV in OUL^R22 message (69)

INV in INU^U05 message

The INV segment contains information necessary to track the inventory of substances (e.g. reagent, tips, waste) on the instruments connected to the system.

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
INV-1		Resource Identifier	CE	R	R	250	Name of the resource Mapping Instrument Inventory to INV (68)
INV-2		Resource Status	CE	R	R	250	The current status of the substance Supported code: • OK = OK status (resource is available)
INV-3		Resource Type	CE	R	R	250	Type of substance Supported codes: • MR = Multiple Test Reagent • DI = Diluent • CO = Control • LW = Liquid Waste • SW = Solid Waste • SC = Countable Solid Item • LI = Measurable Liquid Item The field is empty if INV-21 and INV-22 are populated.
INV-8		Current Quantity	NM	R	R	20	This field contains the current quantity of the substance available on the instrument. See also Example INV segments (68) This field is empty if INV-21 and INV-22 are populated.

INV - inventory detail segment

Field	Component	Element Name	Data Type	From LIS	To LIS	Maximum Length	Description
INV-11		Quantity Units	CE	R	R	250	The units of measure of the available quantity
	INV-11.1	Identifier	ST				Supported values: • 1 = pieces • ul = microliter • % = percentage The field is empty if INV-21 and INV-22 are populated.
	INV-11.2	Text	ST				Not supported
	INV-11.3	Name of Coding System	ID				Fixed value = UCUM
INV-15		Test/Fluid Identifiers	CE	O	O	250	List of supported tests by the reagent/RMC
	INV-15.1	Identifier	ST				SAP code
	INV-15.2	Text	ST				Test family
	INV-15.3	Name of Coding System	ID				Fixed value = 99ROC
INV-21		Equipment State Indicator Type Code	ST	C	C		Fixed value • IC = Instrument Capacity This field is only populated if INV-3 is empty.
INV-22		Equipment State Indicator Value	ST	C	C		This field contains the relative throughput of the instrument capacity. The value is calculated based on the number of available components of the instrument and is expressed in percent. See also Example INV segments (68) This field is only populated if INV-21 is not empty.
	INV-22.1						Instrument capacity
	INV-22.2	Subcomponent 1					Fixed value = %
		Subcomponent 2					This subcomponent is empty.
		Subcomponent 3					Fixed value = UCUM

INV - inventory detail segment

Example INV segments

Example 1: Instrument capacity

- If 1 of 2 components of an instrument is not available, the relative throughput capacity is 50%.

```
INV|Capacity|OK||||||||||||||||||||IC|50^%&&UCUM
```

Example 2: Substance quantity

- A quantity of 400% of diluent indicates that 4 full bottles of diluent are available on the instrument.

```
INV|Diluent|OK|DI|||||400|||%^^UCUM
```

Type of consumable	Resource ID (INV-1)	Resource Type (INV-3)	Quantity Range (INV-8)	Unit of quantity (INV-11)	Description
Combo Tip Rack	Tip rack	SC	0–16	Piece	Only number of tip racks, not number of tips
P-Plate	Processing plate	SC	0–16	Piece	
AD-Plate	Amplification plate	SC	0–16	Piece	

Mapping Instrument Inventory to INV

Type of consumable	Resource ID (INV-1)	Resource Type (INV-3)	Quantity Range (INV-8)	Unit of quantity (INV-11)	Description
MGP	MGP cassette	SC	0–4x480	Piece	Remaining tests summed up for all cassettes.
Reagent	Reagent [Type] [sap-NR]	MR	0 – 12 x 480	Piece	All reagent cassettes of the same type are aggregated. Each type is reported separately.
RMC	RMC [Type] [sap-NR]	CO	(0–8) x (0–16)	Piece	Each control type is reported separately.
Lysis	Lysis reagent	LI	0–400	%	Remaining % summed up (max 200% on Cobas 6800)
Diluent	Diluent	DI	0–400	%	Remaining % summed up (max 200% on Cobas 6800)
Washbuffer	Wash reagent	LI	0–600	%	Remaining % summed up (max 300% on Cobas 6800)
Solid Waste		SW	0–200	%	Filled % summed up (max 100% on Cobas 6800)
Liquid Waste	Liquid waste	LW	0–600	%	Filled % summed up (max 300% on Cobas 6800)
Instrument Capacity	Capacity	IC	0/25/50/75/100	%	Capacity of an instrument

Mapping Instrument Inventory to INV

All resources are sent in aggregated form only. Each consumable type is embedded in its own INV segment. Reagents and RMCs have only 1 INV segment per reagent type. Only usable resources are counted. Expired resources, resources on erroneous stackers, bottles in unlocked slots, or any other type of unusable resources are not counted.

INV in OUL^R22 message

The system uses the INV segment to add inventory information to a result message.

You can configure the system to send lot numbers and expiry dates of reagents and consumables that were used to generate the results. By default, this option is disabled. Users with supervisor rights and Roche Service representatives can enable the option.

If the option is enabled, the system sends the following inventory information (resource) for each test result:

Name of resource (INV-1)	Resource type (INV-3)
<control name>	Control (CO) Only sent for released controls, but not for released test results
Diluent	Diluent (DI)

Inventory information

Name of resource (INV-1)	Resource type (INV-3)
Lysis reagent	Liquid item (LI)
Wash reagent	
<assay name)	Multi test reagent (MR)
MGP cassette	Solid item (SC)
Tip rack	
Amplification plate	
Processing plate	

Inventory information

Each resource (INV-1) is assigned to a resource type (INV-3).

Depending on the result type, the system sends different INV segments.

- RMCs:
  - 1 INV segment with name and expiry date of the used control is sent after the SAC segment.
  - 1 or more INV segments are sent after each channel result. A separate INV is sent for each resource type.
- Patient results:
  - 1 or more INV segments are sent after each channel result. A separate INV is sent for each resource type.

If inventory information is available, the system sends the respective INV segment irrespective of the result status.

The use of the INV segment to send inventory information in the result message (OUL^R22) is not according to the standard LAB-23 workflow. In the LAB-23 workflow, inventory information is sent in a SID segment. This deviation from the workflow is notified in field MSH-21 by the value “LAB-23^ROCHE”.

Field	Component	Element Name	Data Type	To LIS	Maximum Length	Description
INV-1		Resource Identifier	CE	R	250	Name of the resource Supported values: • <control name> = name of control that belongs to the test result. For example: `MPX M(+)C` • <assay name> = copy of OBX-3.2 from overall result. • `MGP cassette` • `Lysis reagent` • `Diluent` • `Wash reagent` • `Tip rack` • `Amplification plate` • `Processing plate`
INV-2		Resource Status	CE	R	250	The current status of the substance Fixed value: • `OK` = OK status (resource is available)
INV-3		Resource Type	CE	R	250	Supported codes: • `MR` = Multiple Test Reagent • `DI` = Diluent • `CO` = Control • `LI` = Measurable Liquid Item • `SC` = Countable Solid Item
INV-12		Expiration Date/Time	TS	R	26	Expiry date of the resource specified in INV-1. Supported format: `YYYYMMDDHHMMSS` (UTC time)
INV-16		Manufacturer Lot Number	ST	R	200	

INV - inventory detail segment

```
INV|MGP cassette|OK|SC|||||||||20161002||||A1234
```

INV segment

Related topics

- Results with reagent and consumables (188)

Supported HL7 messages

This chapter describes the structure of the supported HL7 messages by the system.

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ORL^O34 76
QBP^Q11 77
RSP^K11 78
OUL^R22 (observation result) 79
OUL^R22 (test order deletion) 80
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ACK^R22/U03/U05/U14 83
INR^U14 84
INU^U05 85
SSU^U03 86

OML^O33

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
{	--- SAMPLE start	R	[1..1]
SPM	Sample information	R	[1..1]
SAC	Container information	R	[1..1]
{	--- ORDER start*	R	[1..1]
ORC	Common order (for one battery)	R	[1..1]
{	--- OBSERVATION ORDER start	R	[1..1]
OBR	Observation order	R	[1..1]
TCD	Test code detail**	O	[0..1]
NTE	Notes and comments	O	[0..1]
}	--- OBSEVATION ORDER end		
}	--- ORDER end		
}	--- SAMPLE end		

OML^O33 message:

* Only a single order per messages is allowed.

** If the sample is assigned to a pooled analysis process, a TCD segment is added.

```
MSH|^~\&|LIS||COBAS6800/8800||20161130115852||OML^O33|04468fbd-a8b7-4fa1-8aaa-dd568e3874d6|P|2.5||||
||ASCII
SPM||$005D783C||PLAS^plasma^HL70487|||||||P
SAC|||||||||||||||||||||850|||uL^^UCUM
ORC|NW
OBR|1|||74856-6^MPX^LN
TCD|74856-6^MPX^LN|^1^:^0
NTE|1||This·is·a·comment
```

Example OML^O33 message

Related topics

- Workflows
  - Unsolicited test order submission (22)
  - Solicited test order submission (22)

ORL^O34

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
MSA	Message Acknowledgment	R	[1..1]
{	--- SAMPLE start	R	[1..1]
SPM	Sample information	R	[1..1]
SAC	Container information	O	[0..1]
{	--- ORDER start*	O	[0..1]
ORC	Common order	R	[1..1]
OBR	Observation order	R	[1..1]
}	--- ORDER end		
}	--- SAMPLE end		

ORL^O34 message

* The answer by the system includes a single ORDER block that was received in the OML^O33 message. If a message is rejected, no order block is included in the ORL^O34 message.

```
MSH|^~\&|COBAS6800/8800||LIS||20161130115402||ORL^O34|e1e84ac5a34f4a4c9822|P|2.5||||||ASCII
MSA|AA|04468fbd-a8b7-4fa1-8aaa-dd568e3874d6
SPM||$005D783C||PLAS^plasma^HL70487|||||||P||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
ORC|||||IP||||20161130115402
OBR|1|||74856-6^MPX^LN|||||||A
```

Example ORL^O34 message (time stamp in ORC-9 shows local time)

Related topics

- Workflows
  - Unsolicited test order submission (22)
  - Solicited test order submission (22)

QBP^Q11

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
QPD	Query parameter definition	R	[1..1]

QBP^Q11 message

```
MSH|^~\&|COBAS6800/8800||LIS||20161130115359||QBP^Q11|f167c187-cefc-4102-a836-fe8679e31e0b|P|2.5||||||ASCII
QPD|WOS^Work·Order·Step^IHE_LABTF||$005D783C||3001|5
```

Example QBP^Q11 message (time stamp in MSH-7 shows local time)

Related topics

- Workflow
  - Solicited test order submission (22)

RSP^K11

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
MSA	Message Acknowledgment	R	[1..1]
QAK	Query Acknowledgment	R	[1..1]
QPD	Query parameter definition*	R	[1..1]

RSP^K11 message

* The QPD segment is expected according to HL7 standard, but the system ignores the QPD segment and its content in an incoming RSP^K11 message.

```
MSH|^~\&|LIS||COBAS6800/8800|LAB·Name|20161130115851||RSP^K11|8e2db928-6322-422d-9f9e-7bca1c722707|P
|2.5|||||ASCII
MSA|AA|f167c187-cefc-4102-a836-fe8679e31e0b
QAK||AA
QPD|WOS^Work·Order·Step^IHE_LABTF||$005D783C||3001|5
```

Example RSP^K11 message (LIS accepts Query Mode Request)

Related topics

- Workflow
  - Solicited test order submission (22)

OUL^R22 (observation result)

For sending observation results, the OUL^R22 message has the following structure.

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
{	--- SAMPLE start	R	[1..1]
SPM	Sample information	R	[1..1]
[SAC]	Container information	O	[0..1]
[INV]	Control reagent information	O	[0..1]
{	--- ORDER start	R	[1..1]
OBR	Observation order	R	[1..1]
[NTE]	Notes and comments	O	[0..1]
{	--- CHANNEL RESULT start	R	[1..*]
OBX	Observation result (channel)	R	[1..1]
TCD	Test code detail	R	[1..1]
{[INV]}	Test reagent information	O	[0..*]
[OBX]	Supplementary observation result (channel). Used for sending Ct values.	O	[0..1]
}	--- CHANNEL RESULT end		
{	--- OVERALL RESULT start	R	[1..1]
OBX	Observation result (overall)	R	[1..1]
OBX	Observation result (interpretation)	R	[1..1]
TCD	Test code detail	R	[1..1]
}	--- OVERALL RESULT end		
}	--- ORDER end		
}	--- SAMPLE end		

OUL^R22 message

Related topics

- Workflows
  - Result upload (22)
- OBX segment
  - OBX in result message (54)
- Example messages
  - Assay-specific result messages (109)
  - Results with Ct values (176)
  - Results with reagent and consumables (188)

OUL^R22 (test order deletion)

For sending test order deletions, the OUL^R22 message has the following structure.

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
{	--- SAMPLE start	R	[1..1]
SPM	Sample information	R	[1..1]
[SAC]	Container information	O	[0..1]
{	--- ORDER start	R	[1..1]
OBR	Observation order	R	[1..1]
[NTE]	Notes and comments	O	[0..1]
{	--- RESULT start	R	[1..*]
OBX	Observation result	R	[1..1]
TCD	Test code detail	R	[1..1]
}	--- RESULT end		
}	--- ORDER end		
}	--- SAMPLE end		

OUL^R22 message

```
MSH|^~\&|COBAS6800/8800||LIS||20161130102623||OUL^R22|dcdfda14-39f4-4d7b-bfc4-4fdb2bf989b9|P|2.5||||
||ASCII
SPM||$005D77ZX||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||
OBX|1||74856-6^MPX^LN|||||U04|||X|||||p||C6800/8800^Roche^^~^Roche^^~ID_000000000012076380^^^|201611
30092623
TCD|74856-6^MPX^LN|^1^:^0
```

Example delete test order message (time stamp in OBX-19 shows UTC time)

Related topics

- Workflows
  - Test order delete notification (22)
- OBX segment
  - OBX in delete test order message (58)

OUL^R22 (order tracking)

To track the processing of an order, the OUL^22 message has the following structure.

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
{	--- SAMPLE start	R	[1..*]
SPM	Sample information	R	[1..1]
{	--- ORDER start	R	[1..1]
OBR	Observation request	R	[1..1]
[{ OBX }]	Observation	R	[1..1]
}	--- ORDER end		
}	--- SAMPLE end		

OUL^R22 message

Example test order tracking messages

- No-pooling workflow

```
MSH|^~\&|COBAS6800/8800||LIS||20161124115303||OUL^R22^OUL_R22|ad4055c1-1b95-4235-b8fe-39a44432f71f|P
|2.5||||||ASCII|||ROC-06^ROCHE
SPM||$00H2Z7E6||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||SAMP_TRANS_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-001021^^|20161124105303
```

Sample transfer started (time stamp in OBX-19 shows UTC time)

```
MSH|^~\&|COBAS6800/8800||LIS||20161124141656||OUL^R22^OUL_R22|afb93cf7-0894-49e8-8346-e86666560355|P
|2.5||||||ASCII|||ROC-06^ROCHE
SPM||$00H2Z7E6||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||CALC_FINISHED^^99ROC||||||R|||||AUTO||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001021^^|20161124131656
```

Calculation finished (time stamp in OBX-19 shows UTC time)

- Pooling workflow

```
MSH|^~\&|COBAS6800/8800||LIS||20161124144352||OUL^R22^OUL_R22|32d0d3b0-5ea1-45cf-90be-1658ae954f2b|P
|2.5||||||ASCII|||ROC-06^ROCHE
SPM||SW1.2.CR8.0357||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||POOLINGWORKFLOW_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^Pooler-005821^^|20161124134350
SPM||SW.01.02_2052||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||POOLINGWORKFLOW_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^Pooler-005821^^|20161124134350
SPM||SW1.2.CR7_0473||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||POOLINGWORKFLOW_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^Pooler-005821^^|20161124134350
SPM||SW1.2.2_163||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||POOLINGWORKFLOW_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^Pooler-005821^^|20161124134350
SPM||SW1.2.CR8.0016||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
```

```
OBX|1|CE|PROCESS_STEP^^99ROC||POOLINGWORKFLOW_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^Pooler-005821^^|20161124134350
SPM||SW1.2.CR8.0257||PLAS^plasma^HL70487|||||||P|||||||||||||||
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|CE|PROCESS_STEP^^99ROC||POOLINGWORKFLOW_STARTED^^99ROC||||||I|||||AUTO||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^Pooler-005821^^|20161124134350
```

Pooling workflow started (time stamp in OBX-19 shows UTC time)

Related topics

- Workflows
  - Test order process notification (no pooling) (23)
  - Test order process notification (with pooling) (24)

ACK^R22/U03/U05/U14

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
MSA	Message Acknowledgment	R	[1..1]

ACK message

Example ACK messages

```
MSH|^~\&|LIS||COBAS6800/8800||20160805081548||ACK^R22|26e9e467-dfd1-4edf-84f9-99a7332d059c|P|2.5||||
||ASCII
MSA|AA|b9a4b4e9-6edf-4d35-8613-44e6f604b21f
```

ACK^R22 (acceptance of OUL^R22)

```
MSH|^~\&|LIS||COBAS6800/8800||20160805091831||ACK^R22|a73d4a7b-d039-4f77-8648-533b411d62bd|P|2.5||||
||ASCII
MSA|AR|7a6212d7-2717-486c-abd1-e5abe2cb7ee3
```

ACK^R22 (rejection of OUL^R22)

```
MSH|^~\&|LIS||COBAS6800/8800||20160805161044||ACK^U05|8823db0f-6ebe-41be-ae75-93512cd19903|P|2.5||||
||ASCII|||ROC-04^ROCHE
MSA|AA|0036e475-f492-4073-91be-ae2b743c8e88
```

ACK^U05

```
MSH|^~\&|COBAS6800/8800||LIS||20160805180748||ACK^U14^ACK|18a28872030a45bb9700|P|2.5|||||ASCII
MSA|AA|27f4d497-185b-425c-93f3-fa19a0689e37
```

ACK^U14

Related topics

- Workflow
  - Result upload (22)
  - Test order delete notification (22)
  - Instrument status and capacity update (22)
  - Instrument inventory request (23)
  - Sample tube location notification (23)
  - Test order process notification (no pooling) (23)
  - Test order process notification (with pooling) (23)

INR^U14

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
EQU	Equipment identification & status	R	[1..1]
[{ INV }]	Inventory / resource identification & status	R	[0..*]

INR^U14

The LIS sends an INR^U14 message to request the status and inventory of all instruments connected to the system.

```
MSH|^~\&|LIS|LIS Facility|COBAS6800/8800|Lab|20160615125920||INR^U14^INR_U14|27f4d497-185b-425c-
93f3-fa19a0689e37|P|2.5||||||ASCII |||ROC-03^ROCHE
EQU|IM1000-009999^Roche|20160615125920
```

Example INR^U14 message (time stamp in EQU-2 shows local time)

Related topics

- Workflow
  - Instrument inventory request (23)

INU^U05

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
EQU	Equipment identification & status	R	[1..1]
{ INV }	Inventory / resource identification & status	R	[1..*]

INU^U05

The system sends an INU^U05 message to report the status and inventory of an instrument to the LIS.

Example INU^U05 messages

```
MSH|^~\&|COBAS6800/8800||LIS||20161124110024||INU^U05^INU_U05|75dee7d0-5981-4ddc-b192-78696023a840|P
|2.5||||||ASCII|||ROC-04^ROCHE
EQU|IM300-001021^Roche|20161124110024|RS
INV|Capacity|OK|||||||||||||||||||IC|100^%&&UCUM
```

Status = ready to start (EQU-3 = RS) (time stamp in EQU-2 shows local time)

```
MSH|^~\&|COBAS6800/8800||LIS||20161124110024||INU^U05^INU_U05|8898644c-732d-451c-817f-73cffb8dc50b|P
|2.5||||||ASCII|||ROC-04^ROCHE
EQU|IM300-001021^Roche|20161124110024|OP
INV|Capacity|OK|||||||||||||||||||IC|100^%&&UCUM
```

Status = ready / running (EQU-3 = OP) (time stamp in EQU-2 shows local time)

```
MSH|^~\&|COBAS6800/8800||LIS||20161124104854||INU^U05^INU_U05|7f945c2b-d672-418e-a30b-3e5255f3d429|P
|2.5||||||ASCII|||ROC-04^ROCHE
EQU|IM300-001021^Roche|20161124104854|RS
INV|Amplification plate|OK|SC|||||8|||1^^UCUM
INV|Tip rack|OK|SC|||||8|||1^^UCUM
INV|Processing plate|OK|SC|||||8|||1^^UCUM
INV|MGP cassette|OK|SC|||||960|||1^^UCUM
INV|Lysis reagent|OK|LI|||||198|||%^^UCUM
INV|Diluent|OK|DI|||||141|||%^^UCUM
INV|Wash reagent|OK|LI|||||252|||%^^UCUM
INV|Solid waste|OK|SW|||||0|||%^^UCUM
INV|Liquid waste|OK|LW|||||0|||%^^UCUM
INV|Capacity|OK|||||||||||||||||||IC|100^%&&UCUM
INV|Reagent MPX 6997716190|OK|MR|||||480|||1^^UCUM||||6997716190^MPX^99ROC
INV|RMC·CMV; HBV; HCV; HEV; HIV-1; MPX; WNV 7002220190|OK|CO|||||14|||1^^UCUM||||7002220190^CMV^99RO
C~7002220190^HBV^99ROC~7002220190^HCV^99ROC~7002220190^HEV^99ROC~7002220190^HIV-1^99ROC~7002220190^M
PX^99ROC~7002220190^WNV^99ROC
INV|RMC MPX 6997724190|OK|CO|||||4|||1^^UCUM||||6997724190^MPX^99ROC
```

Status and inventory for instrument with ID = IM300-001021 (EQU-2.1) (time stamp in EQU-2 shows local time)

Related topics

- Workflows
  - Instrument status update (22)
  - Instrument inventory request (23)

SSU^U03

Segment	Description	Usage	Cardinality
MSH	Message header	R	[1..1]
EQU	Equipment identification & status	R	[1..1]
{	--- SAMPLE_CONTAINER start	R	[1..*]
SAC	Container information	R	[1..1]
}	--- SAMPLE_CONTAINER start		

SSU^U03

The system sends an SSU^U03 message to update the LIS about the location of a sample tube.

Example SSU^U03 messages

```
MSH|^~\&|COBAS6800/8800||LIS||20160728164538||SSU^U03^SSU_U03|2f1c986a-136d-47cc-ae0e-
12b097fa1b30|P|2.5||||||ASCII|||ROC-05^ROCHE
EQU|IM1000-005007^Roche|20160728164538|OP
SAC|||$00KHR4HF|||||I^^HL70370
SAC|||$00KHNR06|||||I^^HL70370
SAC|||$00KHPPK2|||||I^^HL70370
SAC|||$00KHPXNH|||||I^^HL70370
SAC|||$00KHPXME|||||I^^HL70370
```

Samples loaded on instrument (SAC-8.1 = I) (time stamps in EQU-2 shows local time)

```
MSH|^~\&|COBAS6800/8800||LIS||20160728170037||SSU^U03^SSU_U03|c27bf3ec-7b73-4084-a29c-
b3bf5be3f598|P|2.5||||||ASCII|||ROC-05^ROCHE
EQU|IM1000-005007^Roche|20160728170037|OP
SAC|||$00KHR4HF|||||L^^HL70370
SAC|||$00KHNR06|||||L^^HL70370
SAC|||$00KHPPK2|||||L^^HL70370
SAC|||$00KHPXNH|||||L^^HL70370
SAC|||$00KHPXME|||||L^^HL70370
```

Samples unloaded from instrument (SAC-8.1 = L) (time stamps in EQU-2 shows local time)

Related topics

- Workflow
  - Sample tube location notification (23)

Error handling

This chapter describes how the system handles communication errors.

In this chapter 5

Error handling 89

Error handling

The system provides a simple error handling as described below.

Message rejection by the LIS

If the LIS does not accept a message, it returns an ACK message with the code `AR` (`Application Reject`) in the field MSA-1. The system then discards the message and informs the user about the rejected message. The system remains connected with the LIS after receiving an `AR`.

No reply from the LIS

If the system sends a message to the LIS and receives no acknowledgment within a timeout-period of 30 sec, it resends the message another 2 times.

If the system receives no acknowledge after sending the same message 3 times, it discards the message and notifies the user about the failed message transmission.

When the system does not receive any acknowledge after sending the same message 3 times, the system remains connected to the LIS.

The number of attempts to resend a message is limited to 2, which is not configurable.

Message rejection by the system

If the system cannot process a message received from the LIS, it returns an ACK message with the code `AR` (`Application Reject`) in the field MSA-1. When rejecting a message, the system remains connected to the LIS.

The system can reject a message due to the following reasons:

- The message cannot be processed because it is incomplete or contains invalid values.
- The message contains a test order that cannot be created in the system due to restrictions (e.g. reuse period time for sample IDs).

If you use the *Host Query* workflow, the *Batch Download* option must also be enabled. If *Batch Download* is disabled, the system rejects all test orders from the host.

Invalid characters

If there is an invalid ASCII character in a message field, its content is replaced with the text `<UNCONVERTABLE VALUE>`.

```
SPM||<UNCONVERTABLE•VALUE>||SP^surePath^99ROC|||||
||P|||||||||||||||
```

Appendix

Appendix

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Sample types

Sample types are dynamic and may change depending on the installed ASAP.

Sample type	Code (SPM-4)
CADAVERIC PLASMA	CP^cadavericPlasma^99ROC
CADAVERIC SERUM	CS^cadavericSerum^99ROC
COBAS PCR MEDIA SWAB	CPM^cobas PCR Media^99ROC
DRIED BLOOD SPOT	DBS^DriedBloodSpot^99ROC
MEATAL SWAB	MEATAL^Meatal^99ROC
PLASMA	PLAS^plasma^HL70487
PRESERVCYT	PCYT^preservCyt^99ROC
PSC	PSEPC^Plasma Separation Card^99ROC
RAW SPUTUM	SPTR^rawSputum^99ROC
ROCHE CELL COLLECTION MEDIA	RCCM^RocheCellCollectionMedia^99ROC
SEDIMENT	SED^Sediment^99ROC
SERUM	SER^serum^HL70487
SUREPATH	SPATH^SurePath^99ROC
SWAB	SWAB^Swab^99ROC
URINE	UR^Urine^HL70487
VIRAL TRANSPORT MEDIA	VTM^Viral Transport Media^99ROC
WHOLE BLOOD	BLD^Whole Blood^HL70487
U_Simple sample	UCSimpS^UC_Simple sample^99ROC
U_Sample with swab	UCSwabS^UC_Sample with swab^99ROC
U_Alcohol-based sample	UCAlcS^UC_Alcohol-based sample^99ROC

Sample types

Assay-specific parameters

This section summarizes the available assays and provides assay-specific codes and specifications.

In this section

Supported assays (96)
Sample type, input volume, and pool sizes (97)
Single target identifiers (99)

Supported assays

Method	Assay	Full Name	Type	
			Qualitative	Quantitative
Blood screening	Babesia	Babesia	✓	
	CHIKV	Chikungunya Virus	✓	
	CHIKV-DENV	Chikungunya/Dengue Virus	✓	
	DENV	Dengue Virus	✓	
	DPX	Duplex Parvo B19/HAV	✓	✓
	DPX-B19	Parvo B19 BLOOD		✓
	HEV	Hepatitis E Virus	✓	
	MPX	Multiplex HIV/HBV/HCV	✓	
	WNV	West Nile Virus	✓	
	Zika	Zika Virus	✓	
Virology	CMV	Cytomegalovirus		✓
	HBV	Hepatitis B Virus		✓
	HCV	Hepatitis C Virus		✓
	HIV-PSC	Human Immunodeficiency Virus - Plasma Separation Card		✓
	HIV-1	Human Immunodeficiency Virus		✓
	HIV-1/2 Qual	HIV-1/HIV-2 Qualitative	✓	
	BKV	BK Virus		✓
	EBV	Epstein-Barr Virus		✓
	SARS-CoV-2	Severe Acute Respiratory Syndrome - Coronavirus 2	✓	
	SCoV2-FluA/B	Severe Acute Respiratory Syndrome - Coronavirus 2 & Influenza A/B	✓	
	SCoV2_Var1_SW13	**cobas**® SARS CoV-2 Variant Set 1	✓	

Supported assays

Method	Assay	Full Name	Type	
			Qualitative	Quantitative
Microbiology	CT	Chlamydia trachomatis	✓	
	NG	Neisseria gonorrhoeae	✓	
	CT/NG	Chlamydia trachomatis / Neisseria gonorrhoeae	✓	
	HPV-GT	Human Papillomavirus High Risk Panel Plus Genotyping	✓	
	HPV-HR	Human Papillomavirus High Risk Panel	✓	
	TV	Trichonomas Vaginalis	✓	
	MG	Mycoplasma Genitalium	✓	
	TV/MG	Trichonomas Vaginalis / Mycoplasma Genitalium	✓	
	MTB	Mycobacterium tuberculosis	✓	
	MTB-RIF/INH	MTB Rifampicin- and Isoniazid-resistant associated mutations	✓	
	MAI	Mycobacterium avium-intracellulare	✓	
Assay for utility channel software(1)	U_xyz(2)*	-	✓	

Supported assays

(1) **cobas**® 6800/8800 Systems 1.3 is compatible with utility channel software 3.1

(2) as defined in UCT ("U_" + maximal 14 digits)

Sample type, input volume, and pool sizes

Assay	Universal Service Identifier (OBX-3, OBR-4, TCD-1)	Sample type		Volume (µl) (SAC-21)	Pool sizes(1) (TCD-2.4)
		Name	Code (SPM 4)		
Babesia	89342-0^Babesia^LN	WHOLE BLOOD	BLD^WholeBlood^HL70487	500	0
BKV	32284-2^BKV^LN	PLASMA	PLAS^plasma^HL70487	200	0
		URINE	UR^Urine^HL70487	400	0
CHIKV	85583-3^CHIKV^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24
CHIKV-DENV	85582-5^CHIKV-DENV^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24
CMV	72493-0^CMV^LN	PLASMA	PLAS^plasma^HL70487	350	0
CT	21613-5^CT^LN	SWAB	SWAB^Swab^99ROC	400	0
		URINE	UR^Urine^HL70487	850	0
		PRESERVCYT	PCYT^preservCyt^99ROC	400	0
CT/NG	72828-7^CT/NG^LN	SWAB	SWAB^Swab^99ROC	400	0
		URINE	UR^Urine^HL70487	850	0
		PRESERVCYT	PCYT^preservCyt^99ROC	400	0
DENV	85584-1^DENV^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24
DPX	75540-5^DPX^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24, 96, 480
DPX-B19	75541-3^DPX-B19^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24, 96, 480
EBV	43730-1^EBV^LN	PLASMA	PLAS^plasma^HL70487	200	0

Sample type, input volume, and pool sizes

Assay	Universal Service Identifier (OBX-3, OBR-4, TCD-1)	Sample type		Volume (µl) (SAC-21)	Pool sizes[1] (TCD-2.4)
		Name	Code (SPM 4)		
HBV	42595-9^HBV^LN	PLASMA	PLAS^plasma^HL70487	200	0
				500	0
		SERUM	SER^serum^HL70487	200	0
				500	0
HCV	11011-4^HCV^LN	PLASMA	PLAS^plasma^HL70487	200	0
				500	0
		SERUM	SER^serum^HL70487	200	0
				500	0
HEV	74858-2^HEV^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24, 96, 480
		SERUM	SER^serum^HL70487	850	0
HIV	70241-5^HIV^LN	PLASMA	PLAS^plasma^HL70487	200	0
				500	0
HIV-PSC	70241-5^HIVPSC^LN	PSC	PSEPC^Plasma Separation Card^99ROC	850	0
HIV-1/2Qual-DBS	85361-4^HIV-1-2-DBS^LN	DRIED BLOOD SPOT	DBS^DriedBloodSpot^99ROC	850	0
HIV-1/2Qual-Ser/Pla	85368-9^HIV-1-2-PlaSer^LN	PLASMA	PLAS^plasma^HL70487	500	0
		SERUM	SER^serum^HL70487	500	0
HPV-GT	71432-9^HPV-GT^LN	PRESERVCYT	PCYT^preservCyt^99ROC	400	0
		RCCM	RCCM^RocheCellCollectionMedia^99ROC	400	0
		SUREPATH	SPATH^SurePath^99ROC	400	0
HPV-HR	82675-0^HPV-HR^LN	PRESERVCYT	PCYT^preservCyt^99ROC	400	0
		RCCM	RCCM^RocheCellCollectionMedia^99ROC	400	0
		SUREPATH	SPATH^SurePath^99ROC	400	0
MAI	85581-7^MAI^LN	RAW SPUTUM	SPTR^rawSputum^99ROC	850	0
		SEDIMENT	SED^Sediment^99ROC	850	0
MG	69935-5^MG^LN	PRESERVCYT	PCYT^preservCyt^99ROC	400	0
		SWAB	SWAB^Swab^99ROC	400	0
		URINE	UR^Urine^HL70487	850	0
		MEATAL SWAB	MEATAL^Meatal^99ROC	850	0
MPX	74856-6^MPX^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6, 24, 96, 480
		SERUM	SER^serum^HL70487	850	0
		CADAVERIC PLASMA	CP^cadavericPlasma^99ROC	150	0
		CADAVERIC SERUM	CS^cadavericSerum^99ROC	150	0
MTB	85362-2^MTB^LN	RAW SPUTUM	SPTR^rawSputum^99ROC	850	0
		SEDIMENT	SED^Sediment^99ROC	850	0
MTB-RIF/INH	89876-7^RIFINH^LN	RAW SPUTUM	SPTR^rawSputum^99ROC	850	0
		SEDIMENT	SED^Sediment^99ROC	850	0
NG	24111-7^NG^LN	SWAB	SWAB^Swab^99ROC	400	0
		URINE	UR^Urine^HL70487	850	0
		PRESERVCYT	PCYT^preservCyt^99ROC	400	0

Sample type, input volume, and pool sizes

Assay	Universal Service Identifier (OBX-3, OBR-4, TCD-1)	Sample type		Volume (µl) (SAC-21)	Pool sizes[1] (TCD-2.4)
		Name	Code (SPM 4)		
SARS-CoV-2	SARS-COV-2^SARS-COV-2^99ROC	SWAB	SWAB^Swab^99ROC	400	0
		COBAS PCR MEDIA SWAB	CPM^cobas PCR Media^99ROC	400	0
SCoV2-FluA/B	95380-2^SCoVFlu^LN	VIRAL TRANSPORT MEDIA	VTM^Viral Transport Media^99ROC	400	0
		COBAS PCR MEDIA SWAB	CPM^cobas PCR Media^99ROC	400	0
SCoV2_Var1_SW13	00006001^UCAP^99ROC	VIRAL TRANSPORT MEDIA	VTM^Viral Transport Media^99ROC	400	0
		U_Sample with swab	UCSwabS^UC_Sample with swab^99ROC	400	0
TV	69937-1^TV^LN	PRESERVCYT	PCYT^preservCyt^99ROC	400	0
		SWAB	SWAB^Swab^99ROC	400	0
		URINE	UR^Urine^HL70487	850	0
		MEATAL SWAB	MEATAL^Meatal^99ROC	850	0
TV/MG	86949-5^TV/MG^LN	PRESERVCYT	PCYT^preservCyt^99ROC	400	0
		SWAB	SWAB^Swab^99ROC	400	0
		URINE	UR^Urine^HL70487	850	0
		MEATAL SWAB	MEATAL^Meatal^99ROC	850	0
U_xyz[2]	xxxxxxx^UCAP^99ROC[3]	U_Simple sample	UCSimpS^UC_Simple sample^99ROC	200[4]	0
				350[4]	0
				500[4]	0
				850[4]	0
		U_Sample with swab	UCSwabS^UC_Sample with swab^99ROC	400	0
		U_Alcohol-based sample	UCAlcS^UC_Alcohol-based sample^99ROC	400	0
WNV	74857-4^WNV^LN	PLASMA	PLAS^plasma^HL70487	850	0, 1, 6
		CADAVERIC PLASMA	CP^cadavericPlasma^99ROC	150	0
		CADAVERIC SERUM	CS^cadavericSerum^99ROC	150	0
Zika	86190-6^ZIKA^LN	PLASMA	PLAS^plasma^HL70487	850	0

Sample type, input volume, and pool sizes

(1) Only sample type PLASMA can be pooled.

(2) Assay name and selectable sample input volumes are customizable for the utility channel software: Assay Name = "U_" + maximal 14 digits

(3) First 7 digits are generated automatically in the utility channel software and added to "^UCAP^99ROC"

(4) Up to 4 sample input volumes are available.

Single target identifiers

Assay	Target	Observation Identifier (OBX-3)
Babesia	Babesia	Babesia^Babesia^99ROC
BKV	BKV	BKV^BKV^99ROC
CHIKV-DENV	CHIKV	CHIKV^CHIKV^99ROC
	DENV	DENV^DENV^99ROC

Single target identifiers

Assay	Target	Observation Identifier (OBX-3)
CMV	CMV	CMV^CMV^99ROC
CT/NG	CT	CT^CT^99ROC
	NG	NG^NG^99ROC
DPX	B19	B19^B19^99ROC
	HAV	HAV^HAV^99ROC
DPX-B19	B19	B19^B19^99ROC
EBV	EBV	EBV^EBV^99ROC
HBV	HBV	HBV^HBV^99ROC
HCV	HCV	HCV^HCV^99ROC
HEV	HEV	HEV^HEV^99ROC
HIV	HIV-1	HIV^HIV^99ROC
HIV-PSC	HIV-1	HIV^HIV^99ROC
HIV-1/2 Qual-DBS	HIV-1	HIV 1^HIV 1^99ROC
	HIV-2	HIV 2^HIV 2^99ROC
HIV-1/2 Qual-Ser/Pla	HIV-1	HIV 1^HIV 1^99ROC
	HIV-2	HIV 2^HIV 2^99ROC
HPV-GT	Other HR HPV	Other HR HPV^Other HR HPV^99ROC
	HPV 16	HPV 16^HPV 16^99ROC
	HPV 18	HPV 18^HPV 18^99ROC
HPV-HR	HR HPV	HR HPV^HR HPV^99ROC
MAI	MIN	MIN^MIN^99ROC
	MAV	MAV^MAV^99ROC
MPX	HIV	HIV^HIV^99ROC
	HBV	HBV^HBV^99ROC
	HCV	HCV^HCV^99ROC
MTB	MTB	MTB^MTB^99ROC
MTB-RIF/INH	INH	INH^INH^99ROC
	RIF1	RIF1^RIF1^99ROC
	RIF2	RIF2^RIF2^99ROC
	RIF3	RIF3^RIF3^99ROC
SARS-CoV-2	Target 1	TGT1^TGT1^99ROC
	Target 2	TGT2^TGT2^99ROC
SCoV2-FluA/B	FluA	FluA^FluA^99ROC
	SCoV2	SCoV2^SCoV2^99ROC
	PanSarb	PanSarb^PanSarb^99ROC
	FluB	FluB^FluB^99ROC
SCoV2_Var1_SW13	SCI	SCI^SCI^99ROC
	E484K	E484K^E484K^99ROC
	N501Y	N501Y^N501Y^99ROC
	69-70	69-70^69-70^99ROC
TV/MG	TV	TV^TV^99ROC
	MG	MG^MG^99ROC

Single target identifiers

Assay	Target	Observation Identifier (OBX-3)
U_xyz[1]	TGT1[2]	TGT1^TGT1^99ROC
	TGT2[2]	TGT2^TGT2^99ROC
	TGT3[2]	TGT3^TGT3^99ROC
	TGT4[2]	TGT4^TGT4^99ROC
WNV	WNV	WNV^WNV^99ROC
Zika	ZIKA	ZIKA^ZIKA^99ROC

Single target identifiers

(1) For the utility channel software, assay name, selectable sample input volumes, sample types, and up to 4 targets are configurable.
- assay name: "U_" + maximal 14 digits
- sample input volumes: Up to 4 sample input volumes are available.
- sample types: Up to 3 sample types are available

(2) Target names are customizable for the utility channel software.

Result codes for OBX segment

This section specifies for each assay what values must be sent in the different types of OBX segments (overall result, result interpretation, channel result).

In this section

Result types (102)
Overall result codes (103)
Result interpretation codes (105)
Channel results (106)

Result types

The system returns different types of results to the LIS (overall result, result interpretation, and channel result).

Single- vs. multi-channel assays

There are 2 basic types of assays: single-channel and multi-channel.

- *Single-channel:* For each test order, the system returns 3 results: 1 overall result, 1 result interpretation, and 1 result for the single channel.
- *Multi-channel:* For each test order, the system returns 1 overall result, 1 result interpretation, and 1 result for each channel.

Assays without overall result

The following assays contain no overall result.

- CT
- NG
- CT/NG
- TV
- MG
- TV/MG
- HPV-HR
- HPV-GT
- MTB
- MTB-RIF/INH
- MAI
- SARS-CoV-2
- SCoV2-FluA/B

If no overall result is included in the result message, the system sends the code `NA` in OBX-5 of the result interpretation OBX, and also in OBX-8 of the overall result OBX.

Interpretation codes for OBX 8

The system supports the following result interpretation codes in OBX-8:

- `NA`: not applicable
- `NR`: non-reactive
- `RR`: reactive
- `VAL`: valid (only used for RMCs)
- `ND`: not detected
- `AT`: above titer
- `BT`: below titer
- `ACO`: above cut-off
- `BCO`: below cut-off
- `POS`: positive
- `NEG`: negative

Related topics

- Assay-specific result messages (109)

Overall result codes

The value `1/1` in OBX-4 identifies the overall result OBX segment.

Assay	OBX-3	OBX-5	OBX-8
QUALITATIVE ASSAYS			
Babesia	89342-0^Babesia^LN	`ValueNotSet` Empty for invalid result	`NR`(1) `RR`(2) `VAL`(3) Error flag for invalid result(4)
CHIKV	85583-3^CHIKV^LN		
CHIKV-DENV	85582-5^CHIKV-DENV^LN		
DENV	85584-1^DENV^LN		
HEV	74858-2^HEV^LN		
HIV-1/2Qual-DBS	85361-4^HIV-1-2-DBS^LN		
HIV-1/2Qual-Ser/Pla	85368-9^HIV-1-2-PlaSer^LN		
MPX	74856-6^MPX^LN		
WNV	74857-4^WNV^LN		
Zika	86190-6^ZIKA^LN		
SCoV2_Var1_SW13	00006001^UCAP^99ROC		

OBX values for overall result

Assay	OBX-3	OBX-5	OBX-8
HPV-GT	71432-9^HPV-GT^LN	ValueNotSet Empty for invalid result	NA(5) VAL(3) Error flag for invalid result(4)
HPV-HR	82675-0^HPV-HR^LN		
CT	21613-5^CT^LN		
NG	24111-7^NG^LN		
CT/NG	72828-7^CT/NG^LN		
TV	69937-1^TV^LN		
MG	69935-5^MG^LN		
TV/MG	86949-5^TV/MG^LN		
MTB	85362-2^MTB^LN		
MTB-RIF/INH	89876-7^RIFINH^LN		
MAI	85581-7^MAI^LN		
SARS-CoV-2	SARS-COV-2^SARS-COV-2^99ROC		
SCoV2-FluA/B	95380-2^SCoVFlu^LN		
QUANTITATIVE ASSAYS			
CMV	72493-0^CMV^LN	ValueNotSet Empty for invalid result	NR(1) RR(2) VAL(3) Error flag for invalid result(4)
DPX-B19	75541-3^DPX-B19^LN		
HBV	42595-9^HBV^LN		
HCV	11011-4^HCV^LN		
HIV-PSC	70241-5^HIVPSC^LN		
HIV-1	70241-5^HIV^LN		
BKV	32284-2^BKV^LN		
EBV	43730-1^EBV^LN		
QUALITATIVE & QUANTITATIVE ASSAYS			
DPX	75540-5^DPX^LN	ValueNotSet Empty for invalid result	NR(1) RR(2) VAL(3) Error flag for invalid result(4)
UCAPs			
U_xyz	xxxxxxx^UCAP^99ROC(6)	ValueNotSet Empty for invalid result	NR(1) RR(2) VAL(3) Error flag for invalid result(4)

OBX values for overall result

(1) If overall result is negative.

(2) If overall result is reactive or positive.

(3) VAL (valid) only used for RMCs.

(4) See Error flags (192)

(5) No overall result generated, only used for samples.

(6) Universal Service Identifier for utility channel software.

Result interpretation codes

The value `1/2` in OBX-4 identifies the result interpretation OBX segment.

Assay	OBX-3	OBX-5	OBX-8

Babesia	89342-0^Babesia^LN	`Non-Reactive`
		`Reactive`
		`Invalid`[1]
		`Valid`[2]
			"" (empty string)

CHIKV	85583-3^CHIKV^LN		
CHIKV-DENV	85582-5^CHIKV-DENV^LN		
DENV	85584-1^DENV^LN		
DPX	75540-5^DPX^LN		
DPX-B19	75541-3^DPX-B19^LN		
HEV	74858-2^HEV^LN		
HIV-1/2Qual-DBS	85361-4^HIV-1-2-DBS^LN		
HIV-1/2Qual-Ser/Pla	85368-9^HIV-1-2-PlaSer^LN		
MPX	74856-6^MPX^LN		
WNV	74857-4^WNV^LN		
Zika	86190-6^ZIKA^LN		
CMV	72493-0^CMV^LN	`Invalid`[1] (invalid results `Titer` (reactive results) `> Titer max` (reactive result) `< Titer min` (reactive results) `Target Not Detected` (non-reactive results)	"" (empty string)
HBV	42595-9^HBV^LN		
HCV	11011-4^HCV^LN		
HIV-PSC	70241-5^HIVPSC^LN		
HIV-1	70241-5^HIV^LN		
BKV	32284-2^BKV^LN		
EBV	43730-1^EBV^LN		

U_xyz	xxxxxxx^UCAP^99ROC[3]	`UC_Positive`
		`UC_Negative`
		`Invalid`[1]
		`Valid`[2]
			"" (empty string)

SCoV2_Var1_SW13	00006001^UCAP^99ROC		
HPV-HR	82675-0^HPV-HR^LN	`NA`[4] `Invalid`[1] `Valid`[2]	"" (empty string)
HPV-GT	71432-9^HPV-GT^LN		
CT	21613-5^CT^LN		
NG	24111-7^NG^LN		
CT/NG	72828-7^CT/NG^LN		
TV	69937-1^TV^LN		
MG	69935-5^MG^LN		
TV/MG	86949-5^TV/MG^LN		
MTB	85362-2^MTB^LN		
MTB-RIF/INH	89876-7^RIFINH^LN		
MAI	85581-7^MAI^LN		
SARS-CoV-2	SARS-COV-2^SARS-COV-2^99ROC		
SCoV2-FluA/B	95380-2^SCoVFlu^LN		

OBX values for result interpretation

(1) Only used for RMCs and samples with aborted runs.

(2) Only used for RMCs.

(3) Universal Service Identifier for utility channel software.

(4) No overall result generated, only used for samples.

Channel results

An empty OBX-4 identifies the channel result OBX segments.

In this section

Channel results for assays with single channel (106)
Channel results for assays with 2 channels (107)
Channel results for assays with 3 channels (107)
Channel results for assays with 4 channels (108)

Channel results for assays with single channel

Assay	OBX-3 (target 1)	OBX-5	OBX-8
Babesia	Babesia^Babesia^99ROC	ValueNotSet Empty if invalid	NR RR VAL(1) Error flag if invalid(2)
CHIKV	CHIKV^CHIKV^99ROC		
DENV	DENV^DENV^99ROC		
HEV	HEV^HEV^99ROC		
WNV	WNV^WNV^99ROC		
Zika	ZIKA^ZIKA^99ROC		
CMV	CMV^CMV^99ROC	ValueNotSet Numeric value if reactive Empty if invalid	AT BT ND Empty if reactive Error flag if invalid(2)
HBV	HBV^HBV^99ROC		
HCV	HCV^HCV^99ROC		
HIV-PSC	HIV^HIV^99ROC		
HIV-1	HIV^HIV^99ROC		
BKV	BKV^BKV^99ROC		
EBV	EBV^EBV^99ROC		
CT	CT^CT^99ROC	ValueNotSet Empty if invalid	NEG POS VAL(1) Error flag if invalid(2)
NG	NG^NG^99ROC		
HPV-HR	HR HPV^HR HPV^99ROC		
TV	TV^TV^99ROC		
MG	MG^MG^99ROC		
MTB	MTB^MTB^99ROC		

OBX values for channel result

(1) Only used for RMCs

(2) See Error flags (192)

Channel results for assays with 2 channels

Assay	OBX-3 Target 1	OBX-3 Target 2	OBX-5	OBX-8

CHIKV-DENV	CHIKV^CHIKV^99ROC	DENV^DENV^99ROC	`ValueNotSet`
			Empty if invalid
				`NR`
				`RR`
				`VAL`(1)
				Error flag if invalid(2)

HIV-1/2Qual-DBS	HIV 1^HIV 1^99ROC	HIV 2^HIV 2^99ROC		
HIV-1/2Qual-Ser/Pla	HIV 1^HIV 1^99ROC	HIV 2^HIV 2^99ROC		
DPX-B19	B19^B19^99ROC	-	`ValueNotSet`	`ACO` `BCO`
			Empty if invalid	Error flag(2)

	-	B19^B19^99ROC	`ValueNotSet`	`AT`
				`BT`
				`ND`

			Numeric value if reactive	Empty
			Empty if invalid	Error flag(2)

CT/NG	CT^CT^99ROC	NG^NG^99ROC	`ValueNotSet`
			Empty if invalid
				`NEG`
				`POS`
				`VAL`(1)
				Error flag if invalid(2)

TV/MG	TV^TV^99ROC	MG^MG^99ROC		
MAI	MIN^MIN^99ROC	MAV^MAV^99ROC		
SARS-CoV-2	TGT1^TGT1^99ROC	TGT2^TGT2^99ROC		

OBX values for channel result

(1) Only used for RMCs

(2) See Error flags (192)

Channel results for assays with 3 channels

Assay	OBX-3 Target 1	OBX-3 Target 2	OBX-3 Target 3	OBX-5	OBX-8

MPX	HIV^HIV^99ROC	HBV^HBV^99ROC	HCV^HCV^99ROC	`ValueNotSet`
				Empty if invalid
					`NR`
					`RR`
					`VAL`(1)
					Error flag if invalid(2)

OBX values for channel result

Assay	OBX-3 Target 1	OBX-3 Target 2	OBX-3 Target 3	OBX-5	OBX-8
DPX	HAV^HAV^99ROC	-	-	ValueNotSet	NR RR VAL[1]
				Empty if invalid	Error flag[2]
	-	B19^B19^99ROC	-	ValueNotSet	ACO BCO
				Empty if invalid	Error flag[2]
	-	-	B19^B19^99ROC	ValueNotSet	AT BT ND
				Numeric value if reactive	Empty
				Empty if invalid	Error flag[2]
HPV-GT	Other HR HPV^Other HR HPV^99ROC	HPV 16^HPV 16^99ROC	HPV 18^HPV 18^99ROC	ValueNotSet Empty if invalid	NEG POS VAL[1] Error flag if invalid[2]

OBX values for channel result

(1) Only used for RMCs

(2) See Error flags (192)

Channel results for assays with 4 channels

Assay	OBX-3 Target 1	OBX-3 Target 2	OBX-3 Target 3	OBX-3 Target 4	OBX-5	OBX-8
MTB-RIF/INH	INH^INH^99ROC	RIF1^RIF1^99ROC	RIF2^RIF2^99ROC	RIF3^RIF3^99ROC	ValueNotSet	NEG POS VAL[1]
					Empty if invalid	Error flag[2]
U_xyz[3]	TGT1^TGT1^99ROC[4]	TGT2^TGT2^99ROC	TGT3^TGT3^99ROC	TGT4^TGT4^99ROC	ValueNotSet	NR RR VAL[1]
					Empty if invalid	Error flag[2]
SCoV2-FluA/B	FluA^FluA^99ROC	SCoV2^SCoV2^99ROC	PanSarb^PanSarb^99ROC	FluB^FluB^99ROC	ValueNotSet	NEG POS VAL[1]
					Empty if invalid	Error flag[2]
SCoV2_Var1_SW13	SCI^SCI^99ROC	E484K^E484K^99ROC	N501Y^N501Y^99ROC	69-70^69-70^99ROC	ValueNotSet	NR RR VAL[1]
					Empty if invalid	Error flag[2]

OBX values for channel result

(1) Only used for RMCs

(2) See Error flags (192)

(3) For the U_xyz assay, up to 4 channels are configurable.

(4) The target names are defined in the UCT and “TGTx” is used as a placeholder.

Assay-specific result messages

The following sections provide assay-specific examples of result messages sent from the system to the LIS.

In this section

Qualitative assays - blood screening (109)
Qualitative assays - microbiology (123)
Qualitative assays - virology (145)
Quantitative assays - virology (155)
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Qualitative assays - blood screening

In this section

Babesia examples (109)
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Babesia examples

Babesia is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20180417160151||OUL^R22|237ed9c6-9b9a-4bc6-8668-21c3eb3dfee5|P|2.5||||
||ASCII
SPM||TC56805_Babesia_05||BLD^Whole Blood^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||89342-0^Babesia^LN|||||||A
OBX|1||Babesia^Babesia^99ROC|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180417132622|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
OBX|2||89342-0^Babesia^LN|1/1|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180417132622|||||||||30_neg^^99ROC~29_pos^^99ROC
OBX|3|ST|89342-0^Babesia^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-000007^^|20180417132622|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
```

Example for Babesia: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20181211104833||OUL^R22|f5f77fc8-06fc-4b25-ae45-c40e0a6ae44c|P|2.5||||
||ASCII
SPM||TC56805_Babesia_01||BLD^Whole Blood^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||89342-0^Babesia^LN|||||||A
OBX|1|ST|Babesia^Babesia^99ROC||ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-000007^^|20180417132621|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
OBX|2|ST|89342-0^Babesia^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-000007^^|20180417132621|||||||||30_neg^^99ROC~29_pos^^99ROC
OBX|3|ST|89342-0^Babesia^LN|1/2|Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-000007^^|20180417132621|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
```

Example for Babesia: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20181211104833||OUL^R22|c9711e7e-72b8-4dd8-887a-90d045bd8be2|P|2.5||||
||ASCII
SPM||TC56805_Babesia_04||BLD^Whole Blood^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||89342-0^Babesia^LN|||||||A
OBX|1|ST|Babesia^Babesia^99ROC||ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-000007^^|20180417132622|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
OBX|2|ST|89342-0^Babesia^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-000007^^|20180417132622|||||||||30_neg^^99ROC~29_pos^^99ROC
OBX|3|ST|89342-0^Babesia^LN|1/2|Non-Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
000000000012076380^IM300-000007^^|20180417132622|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
```

Example for Babesia: Non-Reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20181211104833||OUL^R22|258d5aab-b273-45cb-a346-c9e8d8c1855c|P|2.5||||
||ASCII
SPM||C162126771835570749671||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||89342-0^Babesia^LN|||||||A
OBX|1|ST|Babesia^Babesia^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
000000000012076380^IM300-000007^^|20180417132620|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
OBX|2|ST|89342-0^Babesia^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
000000000012076380^IM300-000007^^|20180417132620|||||||||30_neg^^99ROC~29_pos^^99ROC
OBX|3|ST|89342-0^Babesia^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM300-000007^^|20180417132620|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
```

Example for Babesia: (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20181211104833||OUL^R22|3a1092c3-87cf-4211-b317-1360f514761e|P|2.5||||
||ASCII
SPM||C162127827366733414711||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||89342-0^Babesia^LN|||||||A
OBX|1|ST|Babesia^Babesia^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
000000000012076380^IM300-000007^^|20180417132620|||||||||30_neg^^99ROC
TCD|89342-0^Babesia^LN|^1^:^0
OBX|2|ST|89342-0^Babesia^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
000000000012076380^IM300-000007^^|20180417132620|||||||||30_neg^^99ROC
OBX|3|ST|89342-0^Babesia^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM300-000007^^|20180417132620|||||||||30_neg^^99ROC
```

```
TCD|89342-0^Babesia^LN|^1^:^0
```

Example for Babesia: (-) C

CHIKV examples

CHIKV is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092410||OUL^R22|3443d199-a325-49af-92c7-5f4ca1fc64fd|P|2.5||||
||ASCII
SPM||$00HX98MW||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85583-3^CHIKV^LN||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM300-001010^^|20170511141839|||||||||278_neg^^99ROC~277_pos^^99ROC TCD|85583-
3^CHIKV^LN|^1^:^0
OBX|2|ST|85583-3^CHIKV^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_0000000000012076380^IM300-001010^^|20170511141839|||||||||278_neg^^99ROC~277_pos^^99ROC
OBX|3|ST|85583-3^CHIKV^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_0000000000012076380^IM300-001010^^|20170511141839|||||||||278_neg^^99ROC~277_pos^^99ROC
TCD|85583-3^CHIKV^LN|^1^:^0
```

Example for CHIKV: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092410||OUL^R22|59337caa-7262-464b-a85c-9e80acb498a4|P|2.5||||
||ASCII
SPM||$00HX9C24||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85583-3^CHIKV^LN||||||A
OBX|1||CHIKV^CHIKV^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-001010^^|20170511141838|||||||||278_neg^^99ROC~277_pos^^99ROC TCD|85583-
3^CHIKV^LN|^1^:^0
OBX|2||85583-3^CHIKV^LN|1/1||||Y40T~P01T~C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_0000000000012076380^IM300-001010^^|20170511141838|||||||||278_neg^^99ROC~277_pos^^99ROC
OBX|3|ST|85583-3^CHIKV^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
0000000000012076380^IM300-001010^^|20170511141838|||||||||278_neg^^99ROC~277_pos^^99ROC
TCD|85583-3^CHIKV^LN|^1^:^0
```

Example for CHIKV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092410||OUL^R22|0e11b5b5-e292-432f-a035-ed0d41f1b98c|P|2.5||||
||ASCII
SPM||$00HX8EGE||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85583-3^CHIKV^LN||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM300-001010^^|20170511141837|||||||||278_neg^^99ROC~277_pos^^99ROC TCD|85583-
3^CHIKV^LN|^1^:^0
OBX|2|ST|85583-3^CHIKV^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_0000000000012076380^IM300-001010^^|20170511141837|||||||||278_neg^^99ROC~277_pos^^99ROC
OBX|3|ST|85583-3^CHIKV^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_0000000000012076380^IM300-001010^^|20170511141837|||||||||278_neg^^99ROC~277_pos^^99ROC
TCD|85583-3^CHIKV^LN|^1^:^0
```

Example for CHIKV: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092416||OUL^R22|047727ca-78a5-4e40-891e-8795b0266d94|P|2.5||||
||ASCII
SPM||C1614202840912074119 21||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85583-3^CHIKV^LN|||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511141830|||||||||278_neg^^99ROC~277_pos^^99ROC TCD|85583-
3^CHIKV^LN|^1^:^0
OBX|2|ST|85583-3^CHIKV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001010^^|20170511141830|||||||||278_neg^^99ROC~277_pos^^99ROC
OBX|3|ST|85583-3^CHIKV^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001010^^|20170511141830|||||||||278_neg^^99ROC~277_pos^^99ROC
TCD|85583-3^CHIKV^LN|^1^:^0
```

Example for CHIKV: control CHIKV/DENV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092416||OUL^R22|4cf90203-7af0-4567-9c7a-03bdac30cd0e|P|2.5||||
||ASCII
SPM||C1614202840903916165 51||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85583-3^CHIKV^LN|||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511141826|||||||||278_neg^^99ROC TCD|85583-
3^CHIKV^LN|^1^:^0
OBX|2|ST|85583-3^CHIKV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001010^^|20170511141826|||||||||278_neg^^99ROC
OBX|3|ST|85583-3^CHIKV^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001010^^|20170511141826|||||||||278_neg^^99ROC
TCD|85583-3^CHIKV^LN|^1^:^0
```

Example for CHIKV: control (-) C

DENV examples

DENV is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092523||OUL^R22|fe7adf5f-5b04-46ad-8c0c-e0152d93b855|P|2.5||||
||ASCII
SPM||$00HX88F5||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85584-1^DENV^LN|||||||A
OBX|1|ST|DENV^DENV^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001010^^|20170511141842|||||||||282_neg^^99ROC~281_pos^^99ROC TCD|85584-
1^DENV^LN|^1^:^0
OBX|2|ST|85584-1^DENV^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511141842|||||||||282_neg^^99ROC~281_pos^^99ROC
OBX|3|ST|85584-1^DENV^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001010^^|20170511141842|||||||||282_neg^^99ROC~281_pos^^99ROC
TCD|85584-1^DENV^LN|^1^:^0
```

Example for DENV: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092523||OUL^R22|f68bf82b-975a-4103-8df0-9583581ddc03|P|2.5||||
||ASCII
SPM||$00HX889P||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
```

```
OBR|1|||85584-1^DENV^LN|||||||A
OBX|1||DENV^DENV^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-001010^^|20170511141841|||||||||282_neg^^99ROC~281_pos^^99ROC TCD|85584-
1^DENV^LN|^1^:^0
OBX|2||85584-1^DENV^LN|1/1||||Y40T~P01T~C02H2|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511141841|||||||||282_neg^^99ROC~281_pos^^99ROC
OBX|3|ST|85584-1^DENV^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001010^^|20170511141841|||||||||282_neg^^99ROC~281_pos^^99ROC
TCD|85584-1^DENV^LN|^1^:^0
```

Example for DENV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092523||OUL^R22|59720a90-bf78-414a-b7ca-c87cb17454b2|P|2.5||||
||ASCII
SPM||$00HX8R6X||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85584-1^DENV^LN|||||||A
OBX|1|ST|DENV^DENV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001010^^|20170511141840|||||||||282_neg^^99ROC~281_pos^^99ROC TCD|85584-
1^DENV^LN|^1^:^0
OBX|2|ST|85584-1^DENV^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511141840|||||||||282_neg^^99ROC~281_pos^^99ROC
OBX|3|ST|85584-1^DENV^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001010^^|20170511141840|||||||||282_neg^^99ROC~281_pos^^99ROC
TCD|85584-1^DENV^LN|^1^:^0
```

Example for DENV: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092527||OUL^R22|db24f5ef-df89-4a0f-8868-f208afb41488|P|2.5||||
||ASCII
SPM||C1614202840912074119 23||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85584-1^DENV^LN|||||||A
OBX|1|ST|DENV^DENV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM300-001010^^|20170511141829|||||||||282_neg^^99ROC~281_pos^^99ROC TCD|85584-
1^DENV^LN|^1^:^0
OBX|2|ST|85584-1^DENV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001010^^|20170511141829|||||||||282_neg^^99ROC~281_pos^^99ROC
OBX|3|ST|85584-1^DENV^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001010^^|20170511141829|||||||||282_neg^^99ROC~281_pos^^99ROC
TCD|85584-1^DENV^LN|^1^:^0
```

Example for DENV: control CHIKV/DENV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092527||OUL^R22|63ce1561-3e57-43ddaac6-6f7d5d693601|P|2.5|||||
|ASCII
SPM||C1614202840903916165 53||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85584-1^DENV^LN|||||||A
OBX|1|ST|DENV^DENV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM300-001010^^|20170511141826|||||||||282_neg^^99ROC TCD|85584-1^DENV^LN|^1^:^0
OBX|2|ST|85584-1^DENV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001010^^|20170511141826|||||||||282_neg^^99ROC
OBX|3|ST|85584-1^DENV^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001010^^|20170511141826|||||||||282_neg^^99ROC
TCD|85584-1^DENV^LN|^1^:^0
```

Example for DENV: control (-) C

CHIKV/DENV examples

CHIKV/DENV is a qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092254||OUL^R22|28efdf42-796e-4a06-a376-db03b6fadebd|P|2.5||||
||ASCII
SPM||$00HX8RDE||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85582-5^CHIKV-DENV^LN|||||||A
OBX|1||CHIKV^CHIKV^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-001010^^|20170511141835|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-5^CHIKV-
DENV^LN|^1^:^0
OBX|2||DENV^DENV^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-001010^^|20170511141835|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-5^CHIKV-
DENV^LN|^1^:^0
OBX|3||85582-5^CHIKV-DENV^LN|1/1||||Y40T~P01T~C02H1~C02H2|||X|||||Validator||C6800/8800^Roche^^~Unkn
own^Roche^^~ID_000000000012076380^IM300-001010^^|20170511141835|||||||||280_neg^^99ROC~279_pos^^99RO
C
OBX|4|ST|85582-5^CHIKV-DENV^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001010^^|20170511141835|||||||||280_neg^^99ROC~279_pos^^99ROC
TCD|85582-5^CHIKV-DENV^LN|^1^:^0
```

Example for CHIKV/DENV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092254||OUL^R22|349e6fa2-cff7-45c0-ba1a-4c1b782ffebf|P|2.5||||
||ASCII
SPM||$00HX8L28||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85582-5^CHIKV-DENV^LN|||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-001010^^|20170511141834|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-
5^CHIKV-DENV^LN|^1^:^0
OBX|2|ST|DENV^DENV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001010^^|20170511141834|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-
5^CHIKV-DENV^LN|^1^:^0
OBX|3|ST|85582-5^CHIKV-DENV^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Ro
che^^~ID_000000000012076380^IM300-001010^^|20170511141834|||||||||280_neg^^99ROC~279_pos^^99ROC
OBX|4|ST|85582-5^CHIKV-DENV^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM300-001010^^|20170511141834|||||||||280_neg^^99ROC~279_pos^^99ROC
TCD|85582-5^CHIKV-DENV^LN|^1^:^0
```

Example for CHIKV/DENV: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092254||OUL^R22|ac505b07-3bea-4525-888a-e23ecb1f3fdd|P|2.5||||
||ASCII
SPM||$00HX9CYN||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
```

```
OBR|1|||85582-5^CHIKV-DENV^LN|||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM300-001010^^|20170511141839|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-
5^CHIKV-DENV^LN|^1^:^0
OBX|2|ST|DENV^DENV^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
0000000000012076380^IM300-001010^^|20170511141839|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-
5^CHIKV-DENV^LN|^1^:^0
OBX|3|ST|85582-5^CHIKV-DENV^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Ro
che^^~ID_0000000000012076380^IM300-001010^^|20170511141839|||||||||280_neg^^99ROC~279_pos^^99ROC
OBX|4|ST|85582-5^CHIKV-DENV^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_0000000000012076380^IM300-001010^^|20170511141839|||||||||280_neg^^99ROC~279_pos^^99ROC
TCD|85582-5^CHIKV-DENV^LN|^1^:^0
```

Example for CHIKV/DENV: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092301||OUL^R22|fc429046-ca6f-40a5-8426-a73cb4e40614|P|2.5||||
||ASCII
SPM||C161420284091207411922||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85582-5^CHIKV-DENV^LN|||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_0000000000012076380^IM300-001010^^|20170511141829|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-
5^CHIKV-DENV^LN|^1^:^0
OBX|2|ST|DENV^DENV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_0000000000012076380^IM300-001010^^|20170511141829|||||||||280_neg^^99ROC~279_pos^^99ROC TCD|85582-
5^CHIKV-DENV^LN|^1^:^0
OBX|3|ST|85582-5^CHIKV-DENV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_0000000000012076380^IM300-001010^^|20170511141829|||||||||280_neg^^99ROC~279_pos^^99ROC
OBX|4|ST|85582-5^CHIKV-DENV^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_0000000000012076380^IM300-001010^^|20170511141829|||||||||280_neg^^99ROC~279_pos^^99ROC
TCD|85582-5^CHIKV-DENV^LN|^1^:^0
```

Example for CHIKV/DENV: control CHIKV/DENV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092301||OUL^R22|1dc3e0d3-c19e-489bb399-4b9236bc15ad|P|2.5|||||
|ASCII
SPM||C161420284090391616552||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85582-5^CHIKV-DENV^LN|||||||A
OBX|1|ST|CHIKV^CHIKV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_0000000000012076380^IM300-001010^^|20170511141827|||||||||280_neg^^99ROC TCD|85582-5^CHIKV-
DENV^LN|^1^:^0
OBX|2|ST|DENV^DENV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_0000000000012076380^IM300-001010^^|20170511141827|||||||||280_neg^^99ROC TCD|85582-5^CHIKV-
DENV^LN|^1^:^0
OBX|3|ST|85582-5^CHIKV-DENV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_0000000000012076380^IM300-001010^^|20170511141827|||||||||280_neg^^99ROC
OBX|4|ST|85582-5^CHIKV-DENV^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_0000000000012076380^IM300-001010^^|20170511141827|||||||||280_neg^^99ROC
TCD|85582-5^CHIKV-DENV^LN|^1^:^0
```

Example for CHIKV/DENV: control (-) C

HEV examples

HEV is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170412072426||OUL^R22|593cd644-f5a6-44d9-8f34-d7ad71d42907|P|2.5||||
||ASCII
SPM||RDRIC||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74858-2^HEV^LN|||||||A
OBX|1|ST|HEV^HEV^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000145^^|20170331092754|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
OBX|2|ST|74858-2^HEV^LN|1/1|ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-000145^^|20170331092754|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|3|ST|74858-2^HEV^LN|1/2|Non-Reactive|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_000000000012076380^IM300-000145^^|20170331092754|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
```

Example for HEV: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170411074438||OUL^R22|548870a8-0f6c-425d-ae36-e7a7989273ab|P|2.5||||
||ASCII
SPM||6574839HiQ||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||74858-2^HEV^LN|||||||A
OBX|1||HEV^HEV^99ROC|||||C02H1|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-000145^^|20170405071233|||||||||16_neg^^99ROC~15_pos^^99ROC TCD|74858-
2^HEV^LN|^1^:^0
OBX|2||74858-2^HEV^LN|1/1||||C02H1|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000145^^|20170405071233|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|3|ST|74858-2^HEV^LN|1/2|Invalid|||""|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000145^^|20170405071233|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
```

Example for HEV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170411071917||OUL^R22|8d73d71b-5917-41c8-95e9-b10fd8376074|P|2.5||||
||ASCII
SPM||RDRDHEVIC||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74858-2^HEV^LN|||||||A
OBX|1|ST|HEV^HEV^99ROC||ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000145^^|20170331092754|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
OBX|2|ST|74858-2^HEV^LN|1/1|ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-000145^^|20170331092754|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|3|ST|74858-2^HEV^LN|1/2|Reactive|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Ro
che^^~ID_000000000012076380^IM300-000145^^|20170331092754|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
```

Example for HEV: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170411071632||OUL^R22|c88ccc1a-41fd-4e68-88e0-dd7e11f0875c|P|2.5||||
||ASCII
SPM||C1621269719955541881 21||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
```

```
OBR|1|||74858-2^HEV^LN|||||||A
OBX|1|ST|HEV^HEV^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Ro
che^^~ID_000000000012076380^IM300-000145^^|20170331092753|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
OBX|2|ST|74858-2^HEV^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_000000000012076380^IM300-000145^^|20170331092753|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|3|ST|74858-2^HEV^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-000145^^|20170331092753|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
```

Example for HEV: control HEV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170411071744||OUL^R22|062b265e-6dd0-469d-b5f3-0b623bf31d20|P|2.5||||
||ASCII
SPM||C162127827366733414511||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74858-2^HEV^LN|||||||A
OBX|1|ST|HEV^HEV^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Ro
che^^~ID_000000000012076380^IM300-000145^^|20170331092751|||||||||16_neg^^99ROC TCD|74858-
2^HEV^LN|^1^:^0
OBX|2|ST|74858-2^HEV^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_000000000012076380^IM300-000145^^|20170331092751|||||||||16_neg^^99ROC
OBX|3|ST|74858-2^HEV^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-000145^^|20170331092751|||||||||16_neg^^99ROC
TCD|74858-2^HEV^LN|^1^:^0
```

Example for HEV: control (-) C

MPX examples

MPX is an example of multiplex qualitative assay with 3 channels (targets). For each test order, the system returns 5 OBX segments in a OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20161124144945||OUL^R22|82df3c74-cc4f-4f31-962f-4f11f6a56dc8|P|2.5||||
||ASCII
SPM||$00H2Z7E6||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001021^^|20161124131656|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001021^^|20161124131656|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001021^^|20161124131656|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-001021^^|20161124131656|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001021^^|20161124131656|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20161130095843||OUL^R22|eea7485d-81d4-4b02-b207-82da82f3c693|P|2.5||||
||ASCII
SPM||$005D7FEH||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1||HIV^HIV^99ROC|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-006666^^|20161129145001|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2||HBV^HBV^99ROC|||||NR|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM30
0-006666^^|20161129145001|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|3||HCV^HCV^99ROC|||||NR|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM30
0-006666^^|20161129145001|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4||74856-6^MPX^LN|1/1||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300-006666^^|20161129145001|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129145001|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: 1 target invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20161124144945||OUL^R22|971181ee-368a-4263-9cd4-ab4c606c8693|P|2.5||||
||ASCII
SPM||$00H2Y8E4||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: 1 target non-reactive, 2 targets reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20161124145032||OUL^R22|893aa87b-c9ea-4521-b295-2becf622db1c|P|2.5||||
||ASCII
SPM||C1614202840903906711 93||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131648|||||||||8_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131648|||||||||8_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131648|||||||||8_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001021^^|20161124131648|||||||||8_neg^^99ROC
```

```
OBX|5|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-001021^^|20161124131648|||||||||8_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: negative control MPX (-) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161124145032||OUL^R22|c54fbe9c-d183-4553-9ec0-f1077f6e7767|P|2.5||||
||ASCII
SPM||C1614202840896535612231||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-001021^^|20161124131655|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: positive control MPX M (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161124145032||OUL^R22|3cf6030d-6a9c-4522-ba7c-c7199efdbcaa|P|2.5||||
||ASCII
SPM||C1614202840896535612233||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131654|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001021^^|20161124131654|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|3|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-001021^^|20161124131654|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: positive control MPX 2 (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161124145032||OUL^R22|547a8313-2637-4936-8399-04f1b584dd29|P|2.5||||
||ASCII
SPM||C1614202840896535612232||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001021^^|20161124131652|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001021^^|20161124131652|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|3|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-001021^^|20161124131652|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for MPX: positive control MPX O (+) C

WNV examples

WNV in an example of qualitative single-channel assay. For each test order, the system returns 3 OBX segments in a OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20161130095915||OUL^R22|d9a79ce7-8320-45b7-85b3-9232d4f44980|P|2.5||||
||ASCII
SPM||$005D7FWR||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74857-4^WNV^LN|||||||A
OBX|1|ST|WNV^WNV^99ROC||ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129144955|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
OBX|2|ST|74857-4^WNV^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161129144955|||||||||18_neg^^99ROC~17_pos^^99ROC
OBX|3|ST|74857-4^WNV^LN|1/2|Non-Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161129144955|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
```

Example for WNV: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20161130095925||OUL^R22|5548db3e-a617-4a06-b36d-19b029201c43|P|2.5||||
||ASCII
SPM||$005D7F3H||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74857-4^WNV^LN|||||||A
OBX|1||WNV^WNV^99ROC|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-006666^^|20161129144958|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
OBX|2||74857-4^WNV^LN|1/1||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300-006666^^|20161129144958|||||||||18_neg^^99ROC~17_pos^^99ROC
OBX|3|ST|74857-4^WNV^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129144958|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
```

Example for WNV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20161130095925||OUL^R22|ccfa3e79-1458-452b-a951-1ea7f142f24d|P|2.5||||
||ASCII
SPM||$005D7FFM||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74857-4^WNV^LN|||||||A
OBX|1|ST|WNV^WNV^99ROC||ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129144956|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
OBX|2|ST|74857-4^WNV^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161129144956|||||||||18_neg^^99ROC~17_pos^^99ROC
OBX|3|ST|74857-4^WNV^LN|1/2|Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161129144956|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
```

Example for WNV: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20161130095901||OUL^R22|87d9a1b6-383e-46f8-b18d-3d412bd08773|P|2.5||||
||ASCII
SPM||C162128827922314690661||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74857-4^WNV^LN|||||||A
```

```
OBX|1|ST|WNV^WNV^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161129144950|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
OBX|2|ST|74857-4^WNV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161129144950|||||||||18_neg^^99ROC~17_pos^^99ROC
OBX|3|ST|74857-4^WNV^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161129144950|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
```

Example for WNV: control WNV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161130095901||OUL^R22|641144d6-3951-4f48-93f5-d4aef42362d0|P|2.5||||
||ASCII
SPM||C162128695980919357542||NULL||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74857-4^WNV^LN|||||||A
OBX|1|ST|WNV^WNV^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161129144946|||||||||18_neg^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
OBX|2|ST|74857-4^WNV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161129144946|||||||||18_neg^^99ROC
OBX|3|ST|74857-4^WNV^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161129144946|||||||||18_neg^^99ROC
TCD|74857-4^WNV^LN|^1^:^0
```

Example for WNV: control (-) C

Zika examples

ZIKA is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092016||OUL^R22|3caf5d04-6c76-458ab7e4-05325fc6f8b1|P|2.5|||||
|ASCII
SPM||$00HX9E6M||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86190-6^ZIKA^LN|||||||A
OBX|1|ST|ZIKA^ZIKA^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
0000000000012076380^IM300-001010^^|20170511154529|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
OBX|2|ST|86190-6^ZIKA^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_0000000000012076380^IM300-001010^^|20170511154529|||||||||284_neg^^99ROC~283_pos^^99ROC
OBX|3|ST|86190-6^ZIKA^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
0000000000012076380^IM300-001010^^|20170511154529|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
```

Example for Zika: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092016||OUL^R22|64a83956-665f-47b2-a42d-7465e3673582|P|2.5|||
||ASCII
SPM||$00HX9KGN||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86190-6^ZIKA^LN|||||||A
OBX|1||ZIKA^ZIKA^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-001010^^|20170511154528|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
```

```
OBX|2||86190-6^ZIKA^LN|1/1||||Y40T~P01T~C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511154528|||||||||284_neg^^99ROC~283_pos^^99ROC
OBX|3|ST|86190-6^ZIKA^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001010^^|20170511154528|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
```

Example for Zika: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092016||OUL^R22|23925391-ffa1-4b08-ba26-b972342dde5b|P|2.5||||
||ASCII
SPM||$00HX9DHL||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86190-6^ZIKA^LN|||||||A
OBX|1|ST|ZIKA^ZIKA^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001010^^|20170511154530|||||||||284_neg^^99ROC~283_pos^^99ROC TCD|86190-
6^ZIKA^LN|^1^:^0
OBX|2|ST|86190-6^ZIKA^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-001010^^|20170511154530|||||||||284_neg^^99ROC~283_pos^^99ROC
OBX|3|ST|86190-6^ZIKA^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001010^^|20170511154530|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
```

Example for Zika: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092031||OUL^R22|89cd43c1-860a-43d5-ab62-a3e1459030d4|P|2.5||||
||ASCII
SPM||C161420284087937461831||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86190-6^ZIKA^LN|||||||A
OBX|1|ST|ZIKA^ZIKA^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM300-001010^^|20170511154527|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
OBX|2|ST|86190-6^ZIKA^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001010^^|20170511154527|||||||||284_neg^^99ROC~283_pos^^99ROC
OBX|3|ST|86190-6^ZIKA^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001010^^|20170511154527|||||||||284_neg^^99ROC~283_pos^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
```

Example for Zika: control Zika (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170515092031||OUL^R22|2352e33c-9adc-48a2-99cf-2fdadab8c190|P|2.5||||
||ASCII
SPM||C161420284090391616554||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86190-6^ZIKA^LN|||||||A
OBX|1|ST|ZIKA^ZIKA^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM300-001010^^|20170511154526|||||||||284_neg^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
OBX|2|ST|86190-6^ZIKA^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001010^^|20170511154526|||||||||284_neg^^99ROC
OBX|3|ST|86190-6^ZIKA^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001010^^|20170511154526|||||||||284_neg^^99ROC
TCD|86190-6^ZIKA^LN|^1^:^0
```

Example for Zika: control (-) C

Qualitative assays – microbiology

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CT examples

CT is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151215||OUL^R22|c7435873-161f-4fa5-9e10-95aceaee06cd|P|2.5||||
||ASCII
SPM||PC_CT_02||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||21613-5^CT^LN|||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||NEG|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034340|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
OBX|2|ST|21613-5^CT^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-001057^^|20170907034340|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|3|ST|21613-5^CT^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300-001057^^|20170907034340|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
```

Example for CT: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151227||OUL^R22|70a0a738-be7a-437d-88ce-6b64b16ca1b6|P|2.5||||
||ASCII
SPM||PC_CT_03||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||21613-5^CT^LN|||||||A
OBX|1||CT^CT^99ROC|||||C02H1|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM
300001057^^|20170908031004|||||||||28_neg^^99ROC~27_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
OBX|2||21613-5^CT^LN|1/1||||C02H1|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300001057^^|20170908031004|||||||28_neg^^99ROC~27_pos^^99ROC
OBX|3|ST|21613-5^CT^LN|1/2|NA|||""|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300001057^^|20170908031004|||||||||28_neg^^99ROC~27_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
```

Example for CT: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151216||OUL^R22|69d2cee4-e5de-4c09-ab57-089d9c97ea41|P|2.5||||
||ASCII
SPM||PC_CT_01||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||21613-5^CT^LN|||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034340|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
OBX|2|ST|21613-5^CT^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-001057^^|20170907034340|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|3|ST|21613-5^CT^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-001057^^|20170907034340|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
```

Example for CT: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151227||OUL^R22|08c36560-0dae-46b3-a1cc-7ab2c2ae0d1d|P|2.5||||
||ASCII
SPM||C1614202840842058404 92||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||21613-5^CT^LN|||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170908030957|||||||||28_neg^^99ROC~27_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
OBX|2|ST|21613-5^CT^LN|1/1|ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001057^^|20170908030957|||||||||28_neg^^99ROC~27_pos^^99ROC
OBX|3|ST|21613-5^CT^LN|1/2|Valid|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908030957|||||||||28_neg^^99ROC~27_pos^^99ROC
TCD|21613-5^CT^LN|^1^:^0
```

Example for CT: control CT/NG (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151227||OUL^R22|9ece937a-924b-4054-9ffc-1de043cd8fed|P|2.5||||
||ASCII
SPM||C1614202840841930037 62||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||21613-5^CT^LN|||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170908030955|||||||||28_neg^^99ROC
TCD|21613-5^CT^LN|^1^:^0
OBX|2|ST|21613-5^CT^LN|1/1|ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001057^^|20170908030955|||||||||28_neg^^99ROC
OBX|3|ST|21613-5^CT^LN|1/2|Valid|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908030955|||||||||28_neg^^99ROC
TCD|21613-5^CT^LN|^1^:^0
```

Example for CT: control (-) C

NG examples

NG is qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151255||OUL^R22|d02403a0-475a-4b7b-92bf-0a269a2438bb|P|2.5||||
||ASCII
SPM||PC_NG_02||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
```

```
OBR|1|||24111-7^NG^LN|||||||A
OBX|1|ST|NG^NG^99ROC||ValueNotSet|||NEG|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034333|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
OBX|2|ST|24111-7^NG^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-001057^^|20170907034333|||||||||10_neg^^99ROC~9_pos^^99ROC
OBX|3|ST|24111-7^NG^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300-001057^^|20170907034333|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
```

Example for NG: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151308||OUL^R22|377bd551-e560-4bc1-9822-d56a6aebcd02|P|2.5||||
||ASCII
SPM||PC_NG_03||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||24111-7^NG^LN|||||||A
OBX|1||NG^NG^99ROC|||||C02H2|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM
300-001057^^|20170908031004|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
OBX|2||24111-7^NG^LN|1/1||||C02H2|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300-001057^^|20170908031004|||||||||30_neg^^99ROC~29_pos^^99ROC
OBX|3|ST|24111-7^NG^LN|1/2|NA|||""|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300-001057^^|20170908031004|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
```

Example for NG: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151256||OUL^R22|61b55226-34c2-4f6d-b504-b4c2a8dcdd0b|P|2.5||||
||ASCII
SPM||PC_NG_01||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||24111-7^NG^LN|||||||A
OBX|1|ST|NG^NG^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034334|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
OBX|2|ST|24111-7^NG^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-001057^^|20170907034334|||||||||10_neg^^99ROC~9_pos^^99ROC
OBX|3|ST|24111-7^NG^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300-001057^^|20170907034334|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
```

Example for NG: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151308||OUL^R22|d2d7fc68-f9c3-45a1-99cf-3dca424cc6e5|P|2.5||||
||ASCII
SPM||C1614202840842058404941|NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||24111-7^NG^LN|||||||A
OBX|1|ST|NG^NG^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170908030957|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
OBX|2|ST|24111-7^NG^LN|1/1|ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001057^^|20170908030957|||||||||30_neg^^99ROC~29_pos^^99ROC
OBX|3|ST|24111-7^NG^LN|1/2|Valid|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908030957|||||||||30_neg^^99ROC~29_pos^^99ROC
TCD|24111-7^NG^LN|^1^:^0
```

Example for NG: control CT/NG (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151308||OUL^R22|4f219aae-a90e-4cac-9dfe-570eb5df304b|P|2.5||||
||ASCII
```

```
SPM|1|C1614202840841930037631|NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||24111-7^NG^LN|||||||A
OBX|1|ST|NG^NG^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170908030955|||||||||30_neg^^99ROC
TCD|24111-7^NG^LN|^1^:^0
OBX|2|ST|24111-7^NG^LN|1/1|ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001057^^|20170908030955|||||||||30_neg^^99ROC
OBX|3|ST|24111-7^NG^LN|1/2|Valid|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908030955|||||||||30_neg^^99ROC
TCD|24111-7^NG^LN|^1^:^0
```

Example for NG: control (-) C

CT/NG examples

CT/NG is a qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151018||OUL^R22|481712c3-8e5a-4041-a5fe-69e324094b82|P|2.5||||
||ASCII
SPM||PC_CTNG_04||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN|||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||NEG|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034349|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||NEG|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034349|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3|ST|72828-7^CT/NG^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
0000000012076380^IM300001057^^|20170907034349|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170907034349|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151056||OUL^R22|8a26f666-06b9-4817-a3d9-d19581f707d8|P|2.5||||
||ASCII
SPM||PC_CTNG_07||PCYT^preservCyt^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN|||||||A
OBX|1||CT^CT^99ROC|||||C02H1|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM
300-001057^^|20170908031002|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2||NG^NG^99ROC|||||C02H2|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM
300-001057^^|20170908031002|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3||72828-7^CT/NG^LN|1/1||||C02H1~C02H2|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-001057^^|20170908031002|||||||||26_neg^^99ROC~25_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908031002|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: invalid (both targets)

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151018||OUL^R22|3c0f4730-1b3a-4b83-a366-0e28db81f903|P|2.5||||
||ASCII
SPM||PC_CTNG_02||PCYT^preservCyt^99ROC||||||P||||||||||||||||
SAC||||||||||||||||||||400|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||NEG|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3|ST|72828-7^CT/NG^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
0000000012076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: CT positive / NG negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151018||OUL^R22|a91261ad-7c6e-4f2c-9c86-12a8e3d68478|P|2.5||||
||ASCII
SPM||PC_CTNG_03||PCYT^preservCyt^99ROC||||||P||||||||||||||||
SAC||||||||||||||||||||400|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||NEG|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3|ST|72828-7^CT/NG^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
0000000012076380^IM300001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170907034350|||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: CT negative / NG positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151104||OUL^R22|9eb31b31-5918-41d3-87a3-63557d9c13d9|P|2.5||||
||ASCII
SPM||PC_CTNG_05||PCYT^preservCyt^99ROC||||||P||||||||||||||||
SAC||||||||||||||||||||400|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170908031003|||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2||NG^NG^99ROC|||||C02H2|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM
300-001057^^|20170908031003|||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3||72828-7^CT/NG^LN|1/1||||C02H2|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120
76380^IM300-001057^^|20170908031003|||||||26_neg^^99ROC~25_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908031003|||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: CT positive, NG invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151104||OUL^R22|a96b8240-3df7-47d8-9ca0-e92d16cd3dc8|P|2.5||||
||ASCII
SPM||PC_CTNG_06||PCYT^preservCyt^99ROC||||||P||||||||||||||||
SAC||||||||||||||||||||400|||uL^^UCUM
```

```
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1||CT^CT^99ROC|||||C02H1|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM
300-001057^^|20170908031003|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170908031003|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3||72828-7^CT/NG^LN|1/1||||C02H1|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120
76380^IM300-001057^^|20170908031003|||||||||26_neg^^99ROC~25_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||X|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170908031003|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: CT invalid, NG positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151026||OUL^R22|92322b5b-982e-4863-b55f-1751b60b7e1b|P|2.5||||
||ASCII
SPM||PC_CTNG_01||PCYT^preservCyt^99ROC||||||P|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||POS|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3|ST|72828-7^CT/NG^LN|1/1|ValueNotSet|||NA|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|NA|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151026||OUL^R22|da1bce58-12da-4b94-a62b-e528d526eebf|P|2.5||||
||ASCII
SPM||C161420284084205601471||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3|ST|72828-7^CT/NG^LN|1/1|ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|Valid|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-001057^^|20170907034333|||||||||8_neg^^99ROC~7_pos^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: control CT/NG (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170912151026||OUL^R22|7fb5647d-5307-4c2e-84d1-a2b27ff7e76b|P|2.5||||
||ASCII
SPM||C161420284090428955622||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
OBR|1|||72828-7^CT/NG^LN||||||A
OBX|1|ST|CT^CT^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034330|||||||||8_neg^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

```
OBX|2|ST|NG^NG^99ROC||ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-001057^^|20170907034330|||||||||8_neg^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
OBX|3|ST|72828-7^CT/NG^LN|1/1|ValueNotSet|||VAL|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-001057^^|20170907034330|||||||||8_neg^^99ROC
OBX|4|ST|72828-7^CT/NG^LN|1/2|Valid|||""|||F|||||TV||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-001057^^|20170907034330|||||||||8_neg^^99ROC
TCD|72828-7^CT/NG^LN|^1^:^0
```

Example for CT/NG: control (-) C

TV examples

TV is qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170828142219||OUL^R22|39de1434-6901-4cc7-98d0-6233d5fc86a3|P|2.5||||
||ASCII
SPM||TV_Mswab_Negative_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69937-1^TV^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||NEG|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170828115024|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN|^1^:^0
OBX|2|ST|69937-1^TV^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20170828115024|||||||||250_neg^^99ROC~249_pos^^99ROC
OBX|3|ST|69937-1^TV^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20170828115024|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN|^1^:^0
```

Example for TV: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170828142219||OUL^R22|0a5d8025-9de2-447a-a73a-baf2df743b39|P|2.5||||
||ASCII
SPM||TV_Mswab_Invalid_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69937-1^TV^LN|||||||A
OBX|1||TV^TV^99ROC|||||Y40T|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-000007^^|20170828115026|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN|^1^:^0
OBX|2||69937-1^TV^LN|1/1||||Y40T~P01T~C02H1|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20170828115026|||||||||250_neg^^99ROC~249_pos^^99ROC
OBX|3|ST|69937-1^TV^LN|1/2|NA|||""|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20170828115026|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN|^1^:^0
```

Example for TV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170828142219||OUL^R22|00ff0196-edb5-49fa-a0f0-13384e04f1fd|P|2.5||||
||ASCII
SPM||TV_Mswab_Reactive_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69937-1^TV^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||POS|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170828115025|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN|^1^:^0
```

```
OBX|2|ST|69937-1^TV^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20170828115025|||||||||250_neg^^99ROC~249_pos^^99ROC
OBX|3|ST|69937-1^TV^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20170828115025|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN |^1^:^0
```

Example for TV: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170828142220||OUL^R22|7463d74f-e78b-4315-b861-256b0fb6bfb4|P|2.5||||
||ASCII
SPM||C1621267718355707500 81||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
OBR|1||| 69937-1^TV^LN |||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170828115023|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD| 69937-1^TV^LN|^1^:^0
OBX|2|ST|69937-1^TV^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-000007^^|20170828115023|||||||||250_neg^^99ROC~249_pos^^99ROC
OBX|3|ST|69937-1^TV^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170828115023|||||||||250_neg^^99ROC~249_pos^^99ROC
TCD|69937-1^TV^LN|^1^:^0
```

Example for TV/MG: control TV/MG (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170828142220||OUL^R22|39fc262a-1c13-4bd3-923f-dc8e08503f4a|P|2.5||||
||ASCII
SPM||C1621267718355707495 61||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
OBR|1|||69937-1^TV^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170828115015|||||||||250_neg^^99ROC
TCD|69937-1^TV^LN |^1^:^0
OBX|2|ST|69937-1^TV^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-000007^^|20170828115015|||||||||250_neg^^99ROC
OBX|3|ST|69937-1^TV^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170828115015|||||||||250_neg^^99ROC
TCD|69937-1^TV^LN|^1^:^0
```

Example for TV/MG: control (-) C

MG examples

MG is qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170901115402||OUL^R22|7eccfd72-797a-447d-af37-8263ded051ee|P|2.5||||
||ASCII
SPM||MG_Mswab_Negative_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
OBR|1|||69935-5^MG^LN|||||||A
OBX|1|ST|MG^MG^99ROC||ValueNotSet|||NEG|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170901090304|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD|69935-5^MG^LN|^1^:^0
OBX|2|ST|69935-5^MG^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20170901090304|||||||||260_neg^^99ROC~259_pos^^99ROC
OBX|3|ST|69935-5^MG^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20170901090304 |||||||||260_neg^^99ROC~259_pos^^99ROC
```

```
TCD|69935-5^MG^LN|^1^:^0
```

Example for MG: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170901115402||OUL^R22|4c7cc1fe-db04-4d65-a456-e022b7eef226|P|2.5||||
||ASCII
SPM||MG_Mswab_Invalid_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69935-5^MG^LN|||||||A
OBX|1||MG^MG^99ROC|||||Y40T|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-000007^^|20170901090306|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD|69935-5^MG^LN|^1^:^0
OBX|2||69935-5^MG^LN|1/1|||||Y40T~P01T~C02H2|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20170901090306|||||||||260_neg^^99ROC~259_pos^^99ROC
OBX|3|ST|69935-5^MG^LN|1/2|NA|||""|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20170901090306|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD|69935-5^MG^LN|^1^:^0
```

Example for MG: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170901115402||OUL^R22|4db292f5-bd5b-47be-9118-32a91785e5b9|P|2.5||||
||ASCII
SPM||MG_Mswab_Reactive||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69935-5^MG^LN|||||||A
OBX|1|ST|MG^MG^99ROC||ValueNotSet|||POS|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170901090304|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD|69935-5^MG^LN|^1^:^0
OBX|2|ST|69935-5^MG^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20170901090304|||||||||260_neg^^99ROC~259_pos^^99ROC
OBX|3|ST|69935-5^MG^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20170901090304|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD|69935-5^MG^LN|^1^:^0
```

Example for MG: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170901115403||OUL^R22|9ba6ef2f-63fb-46dd-ac4b-7320d2d325b3|P|2.5||||
||ASCII
SPM||C162126771835570750193||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69935-5^MG^LN|||||||A
OBX|1|ST|MG^MG^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170901090303|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD| 69935-5^MG^LN |^1^:^0
OBX|2|ST|69935-5^MG^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-000007^^|20170901090303|||||||||260_neg^^99ROC~259_pos^^99ROC
OBX|3|ST|69935-5^MG^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170901090303|||||||||260_neg^^99ROC~259_pos^^99ROC
TCD|69935-5^MG^LN|^1^:^0
```

Example for TV/MG: control TV/MG (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170901115403||OUL^R22|2d693df9-eddc-4f96-b88e-cd24dcc827e5|P|2.5||||
||ASCII
SPM||C162126771835570749583||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||69935-5^MG^LN|||||||A
OBX|1|ST|MG^MG^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170901090302|||||||||260_neg^^99ROC
TCD|69935-5^MG^LN |^1^:^0
OBX|2|ST|69935-5^MG^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-000007^^|20170901090302|||||||||260_neg^^99ROC
```

```
OBX|3|ST|69935-5^MG^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170901090302|||||||||260_neg^^99ROC
TCD|69935-5^MG^LN |^1^:^0
```

Example for TV/MG: control (-) C

TV/MG examples

TV/MG is a qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170905162151||OUL^R22|e72a9879-8626-46ab-aa24-238de20e17c0|P|2.5||||
||ASCII
SPM||TVMG_Mswab_Negative_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86949-5^TV/MG^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||NEG|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170905142040|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|2|ST|MG^MG^99ROC||ValueNotSet|||NEG|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170905142040|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|3|ST|86949-5^TV/MG^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM300-000007^^|20170905142040|||||||||260_neg^^99ROC~261_pos^^99ROC
OBX|4|ST|86949-5^TV/MG^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170905142040|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: TV negative / MG negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170824104658||OUL^R22|ff15b2ef-0681-4420-9271-6ebb6e8e9729|P|2.5||||
||ASCII
SPM||TVMG_Mswab_Invalid_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86949-5^TV/MG^LN|||||||A
OBX|1||TV^TV^99ROC|||||Y40T|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|2||MG^MG^99ROC|||||Y40T|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN |^1^:^0
OBX|3||86949-5^TV/MG^LN|1/1||||Y40T~P01T~C02H1~C02H2|||X|||||Technical Validator||C6800/8800^Roche^^
~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^
^99ROC
OBX|4|ST|86949-5^TV/MG^LN|1/2|NA|||""|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: TV invalid / MG invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170824104658||OUL^R22|11d0f8d8-c9ad-46f4-b074-d6e337171a8b|P|2.5||||
||ASCII
SPM||TVMG_Mswab_Reactive_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86949-5^TV/MG^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||POS|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^^99ROC
```

```
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|2|ST|MG^MG^99ROC||ValueNotSet|||POS|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN |^1^:^0
OBX|3|ST|86949-5^TV/MG^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM300-000007^^|20170824082654|||||||||230_neg^^99ROC~229_pos^^99ROC
OBX|4|ST|86949-5^TV/MG^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170824082654|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: TV positive / MG positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170824104658||OUL^R22|eec5b640-3679-4b9e-bbb4-f3fded04a6e7|P|2.5||||
||ASCII
SPM||TVMG_Mswab_MG-RR_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86949-5^TV/MG^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||NEG|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170824082655|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|2|ST|MG^MG^99ROC||ValueNotSet|||POS|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170824082655|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN |^1^:^0
OBX|3|ST|86949-5^TV/MG^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM300-000007^^|20170824082655|||||||||260_neg^^99ROC~261_pos^^99ROC
OBX|4|ST|86949-5^TV/MG^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170824082655|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: TV negative / MG positive

```
MSH|^~\&|COBAS6800/8800||LIS||20170824104658||OUL^R22|fda96b09-d5bd-414e-a0c6-ca6b42765a7c|P|2.5||||
||ASCII
SPM||TVMG_Mswab_TV-RR_1.3||MEATAL^Meatal^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86949-5^TV/MG^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||POS|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170824082653|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|2|ST|MG^MG^99ROC||ValueNotSet|||NEG|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170824082653|||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN |^1^:^0
OBX|3|ST|86949-5^TV/MG^LN|1/1|ValueNotSet|||NA|||F|||||Technical Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM300-000007^^|20170824082653|||||||||230_neg^^99ROC~229_pos^^99ROC
OBX|4|ST|86949-5^TV/MG^LN|1/2|NA|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-000007^^|20170824082653|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: TV positive / MG negative

```
MSH|^~\&|COBAS6800/8800||LIS||20170905162151||OUL^R22|e196d09c-7ea3-4e8e-8bab-3679218e1290|P|2.5||||
||ASCII
SPM||C1621267718355707501 81||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||  86949-5^TV/MG^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170905142039|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|  86949-5^TV/MG^LN|^1^:^0
OBX|2|ST|MG^MG^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20170905142039|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD|  86949-5^TV/MG^LN|^1^:^0
```

```
OBX|3|ST|86949-5^TV/MG^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unkn
own^Roche^^~ID_000000000012076380^IM300-000007^^|201709051420 39|||||||||260_neg^^99ROC~261_pos^^99RO
C
OBX|4|ST|86949-5^TV/MG^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|201709051420 39|||||||||260_neg^^99ROC~261_pos^^99ROC
TCD| 86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: control TV/MG (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170905162151||OUL^R22|18c69bb9-7909-43c2-bd6a-b46fbde4f065|P|2.5|||
||ASCII
SPM||C162126771835570749541||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||86949-5^TV/MG^LN|||||||A
OBX|1|ST|TV^TV^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|201709051420 38|||||||||260_neg^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|2|ST|MG^MG^99ROC||ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|201709051420 38|||||||||260_neg^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
OBX|3|ST|86949-5^TV/MG^LN|1/1|ValueNotSet|||VAL|||F|||||Technical Validator||C6800/8800^Roche^^~Unkn
own^Roche^^~ID_000000000012076380^IM300-000007^^|201709051420 38|||||||||260_neg^^99ROC
OBX|4|ST|86949-5^TV/MG^LN|1/2|Valid|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|201709051420 38|||||||||260_neg^^99ROC
TCD|86949-5^TV/MG^LN|^1^:^0
```

Example for TV/MG: control (-) C

MTB examples

MTB is a qualitative assay with 1 channel defined for the target. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20180419152756||OUL^R22|871630e7-faf7-47fc-9c8d-0793832b0796|P|2.5|||
||ASCII
SPM||MTB-RS-Run05-03||SPTR^rawSputum^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85362-2^MTB^LN|||||||A
OBX|1|ST|MTB^MTB^99ROC||ValueNotSet|||NEG|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180419074143|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
OBX|2|ST|85362-2^MTB^LN|1/1|ValueNotSet|||NA|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20180419074143|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|3|ST|85362-2^MTB^LN|1/2|NA|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180419074143|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
```

Example for MTB: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20180419152756||OUL^R22|5e799df1-077e-4cb3-a936-455d8637fcf4|P|2.5|||
||ASCII
SPM||MTB-RS-Run05-02||SPTR^rawSputum^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85362-2^MTB^LN|||||||A
OBX|1||MTB^MTB^99ROC|||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180419074143|||||||||46_neg^^99ROC~45_pos^^99ROC
```

```
TCD|85362-2^MTB^LN|^1^:^0
OBX|2||85362-2^MTB^LN|1/1||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM300-000007^^|20180419074143|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|3|ST|85362-2^MTB^LN|1/2|NA|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180419074143|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
```

Example for MTB: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20180419152756||OUL^R22|2244917d-850a-445c-9a92-fdc89e062818|P|2.5||||
||ASCII
SPM||MTB-RS-Run05-01||SPTR^rawSputum^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85362-2^MTB^LN|||||||A
OBX|1|ST|MTB^MTB^99ROC||ValueNotSet|||POS|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180419074142|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
OBX|2|ST|85362-2^MTB^LN|1/1|ValueNotSet|||NA|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20180419074142|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|3|ST|85362-2^MTB^LN|1/2|NA|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180419074142|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
```

Example for MTB: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180419152756||OUL^R22|cede8f61-f077-4057-9647-2b9aeefe3779|P|2.5||||
||ASCII
SPM||C162126959485555223331||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85362-2^MTB^LN|||||||A
OBX|1|ST|MTB^MTB^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180419074142|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
OBX|2|ST|85362-2^MTB^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20180419074142|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|3|ST|85362-2^MTB^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-000007^^|20180419074142|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
```

Example for MTB: control MTB (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20180419152756||OUL^R22|ce3074f9-a1c8-478b-8793-3a00884860e5|P|2.5||||
||ASCII
SPM||C162126959485555223211||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85362-2^MTB^LN|||||||A
OBX|1|ST|MTB^MTB^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180419074141|||||||||46_neg^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
OBX|2|ST|85362-2^MTB^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20180419074141|||||||||46_neg^^99ROC
OBX|3|ST|85362-2^MTB^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-000007^^|20180419074141|||||||||46_neg^^99ROC
TCD|85362-2^MTB^LN|^1^:^0
```

Example for MTB: control (-) Ctrl

MTB-RIF/INH examples

MTB-RIF/INH is an qualitative assay with 4 channels (targets). For each test order, the system returns 6 OBX segments in a OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20180913122307||OUL^R22|783be4e4-431a-4ee5-b636-bd54f3f53182|P|2.5||||
||ASCII
SPM||MTB-RI-Sed-Run01||SED^Sediment^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||89876-7^RIFINH^LN|||||||A
OBX|1||INH^INH^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM3
00-000007^^|20180913100151|||||||||146_neg^^99ROC~145_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|2||RIF1^RIF1^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-000007^^|20180913100151|||||||||146_neg^^99ROC~145_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|3||RIF2^RIF2^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-000007^^|20180913100151|||||||||146_neg^^99ROC~145_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|4||RIF3^RIF3^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-000007^^|20180913100151|||||||||146_neg^^99ROC~145_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|5||89876-7^RIFINH^LN|1/1||||Q02~U06T~P01T~C02H1~C02H2~C02H3~C02H4|||X|||||p||C6800/8800^Roche^^~
Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20180913100151|||||||||146_neg^^99ROC~145_pos^^
99ROC
OBX|6|ST|89876-7^RIFINH^LN|1/2|NA|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180913100151|||||||||146_neg^^99ROC~145_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
```

MTB-RIF/INH: Invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20180926063449||OUL^R22|859c9ad5-7259-4a9b-9357-f7fab2101df8|P|2.5||||
||ASCII
SPM||MTB-RI-Sed-Run05-01||SED^Sediment^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||89876-7^RIFINH^LN|||||||A
OBX|1|ST|INH^INH^99ROC||ValueNotSet|||POS|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20180918122359|||||||||166_neg^^99ROC~165_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|2|ST|RIF1^RIF1^99ROC||ValueNotSet|||POS|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180918122359|||||||||166_neg^^99ROC~165_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|3|ST|RIF2^RIF2^99ROC||ValueNotSet|||POS|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180918122359|||||||||166_neg^^99ROC~165_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|4|ST|RIF3^RIF3^99ROC||ValueNotSet|||POS|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180918122359|||||||||166_neg^^99ROC~165_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|5|ST|89876-7^RIFINH^LN|1/1|ValueNotSet|||NA|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20180918122359|||||||||166_neg^^99ROC~165_pos^^99ROC
OBX|6|ST|89876-7^RIFINH^LN|1/2|NA|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180918122359|||||||||166_neg^^99ROC~165_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
```

MTB-RIF/INH: Positive

```
MSH|^~\&|COBAS6800/8800||LIS||20181204065919||OUL^R22|880cbdfb-02bb-48a3-b560-5bd3b4cbdb9a|P|2.5||||
||ASCII
```

```
SPM||CT-test_IC_o_-25||SPTR^rawSputum^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||89876-7^RIFINH^LN|||||||A
OBX|1|ST|INH^INH^99ROC||ValueNotSet|||NEG|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20180712144741|||||||||142_neg^^99ROC~141_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|2|ST|RIF1^RIF1^99ROC||ValueNotSet|||NEG|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180712144741|||||||||142_neg^^99ROC~141_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|3|ST|RIF2^RIF2^99ROC||ValueNotSet|||NEG|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180712144741|||||||||142_neg^^99ROC~141_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|4|ST|RIF3^RIF3^99ROC||ValueNotSet|||NEG|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180712144741|||||||||142_neg^^99ROC~141_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|5|ST|89876-7^RIFINH^LN
|1/1|ValueNotSet|||NA|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-0000
07^^|20180712144741|||||||||142_neg^^99ROC~141_pos^^99ROC
OBX|6|ST|89876-7^RIFINH^LN|1/2|NA|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180712144741|||||||||142_neg^^99ROC~141_pos^^99ROC
TCD|RIFINH^RIFINH^99ROC|^1^:^0
```

MTB-RIF/INH: Non-Reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20181002080426||OUL^R22|39544c6c-9643-4cf5-82a6-bac7ecf213bd|P|2.5||||
||ASCII
SPM||C162126970480671503781||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||89876-7^RIFINH^LN|||||||A
OBX|1|ST|INH^INH^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC~179_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|2|ST|RIF1^RIF1^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC~179_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|3|ST|RIF2^RIF2^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC~179_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|4|ST|RIF3^RIF3^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC~179_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|5|ST|89876-7^RIFINH^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC~179_pos^^99ROC
OBX|6|ST|89876-7^RIFINH^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC~179_pos^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
```

MTB-RIF/INH: INH (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20181002080426||OUL^R22|138d45a6-a790-442d-ae0d-80622f021f0c|P|2.5||||
||ASCII
SPM||C162126959485555223261||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||89876-7^RIFINH^LN|||||||A
OBX|1|ST|INH^INH^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|2|ST|RIF1^RIF1^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
```

```
OBX|3|ST|RIF2^RIF2^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|4|ST|RIF3^RIF3^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
OBX|5|ST|89876-7^RIFINH^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC
OBX|6|ST|89876-7^RIFINH^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20181002054029|||||||||180_neg^^99ROC
TCD|89876-7^RIFINH^LN|^1^:^0
```

MTB-RIF/INH: (-) C

MAI examples

MAI is a qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20180424144526||OUL^R22|cdfe00d2-7d49-4dde-8274-95f769c57471|P|2.5||||
||ASCII
SPM||MAI-RS-Run06-01||SPTR^rawSputum^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1|ST|MIN^MIN^99ROC||ValueNotSet|||NEG|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423152933|||||||||60_neg^^99ROC~59_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2|ST|MAV^MAV^99ROC||ValueNotSet|||NEG|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423152933|||||||||60_neg^^99ROC~59_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3|ST|85581-7^MAI^LN|1/1|ValueNotSet|||NA|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20180423152933|||||||||60_neg^^99ROC~59_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|NA|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300-000007^^|20180423152933|||||||||60_neg^^99ROC~59_pos^^99ROCTCD|85581-7^MAI^LN|^1^:^0
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: MIN negative / MAV negative

```
MSH|^~\&|COBAS6800/8800||LIS||20180424144526||OUL^R22|416e89b9-b83b-488d-a8a1-4521863381ce|P|2.5||||
||ASCII
SPM||MAI-RS-Run06-02||SPTR^rawSputum^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1||MIN^MIN^99ROC|||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180423152934|||||||||60_neg^^99ROC~59_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2||MAV^MAV^99ROC|||||C02H2|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180423152934|||||||||60_neg^^99ROC~59_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3||85581-7^MAI^LN|1/1||||C02H1~C02H2|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-000007^^|20180423152934|||||||||60_neg^^99ROC~59_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|NA|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180423152934|||||||||60_neg^^99ROC~59_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: MIN invalid / MAV invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20180423162445||OUL^R22|23e39264-74bf-4c59-8787-c8327c8aa628|P|2.5||||
||ASCII
SPM||MAI-Sed-Run05-01||SED^Sediment^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1|ST|MIN^MIN^99ROC||ValueNotSet|||POS|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125035|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2|ST|MAV^MAV^99ROC||ValueNotSet|||POS|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125035|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3|ST|85581-7^MAI^LN|1/1|ValueNotSet|||NA|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20180423125035|||||||||58_neg^^99ROC~57_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|NA|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180423125035|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: MIN positive / MAV positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180423162445||OUL^R22|d915f82b-ac84-41e0-adab-785bdbbd5129|P|2.5||||
||ASCII
SPM||MAI-Sed-Run05-03||SED^Sediment^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1||MIN^MIN^99ROC|||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2|ST|MAV^MAV^99ROC||ValueNotSet|||POS|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3||85581-7^MAI^LN|1/1||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|NA|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: MIN invalid / MAV positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180423162445||OUL^R22|6275d0b7-a045-46a2-afe4-0ac9223043a6|P|2.5||||
||ASCII
SPM||MAI-Sed-Run05-02||SED^Sediment^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1|ST|MIN^MIN^99ROC||ValueNotSet|||POS|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2||MAV^MAV^99ROC|||||C02H2|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3||85581-7^MAI^LN|1/1||||C02H2|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|NA|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20180423125036|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: MIN positive / MAV invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20180423162445||OUL^R22|7f596aaf-d13a-422c-8026-e97c39ae821e|P|2.5||||
||ASCII
SPM||C162126959485555223261||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
```

```
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1|ST|MIN^MIN^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2|ST|MAV^MAV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3|ST|85581-7^MAI^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: control MAI (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20180423162445||OUL^R22|7f596aaf-d13a-422c-8026-e97c39ae821e|P|2.5||||
||ASCII
SPM||C162126959485555223261||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85581-7^MAI^LN|||||||A
OBX|1|ST|MIN^MIN^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|2|ST|MAV^MAV^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
OBX|3|ST|85581-7^MAI^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
OBX|4|ST|85581-7^MAI^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-000007^^|20180423125034|||||||||58_neg^^99ROC~57_pos^^99ROC
TCD|85581-7^MAI^LN|^1^:^0
```

Example for MAI: control (-) Ctrl

HPV-GT examples

HPV-GT is a qualitative assay with 3 channels (targets). For each test order, the system returns 5 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20180112143700||OUL^R22|d452f565-abcd-4ba1-b974-fff4d8dce624|P|2.5||||
||ASCII
SPM||R_39+16+18+BG+||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1|ST|Other HR HPV^Other HR HPV^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~U
nknown^Roche^^~ID_000000000012076380^IM300-001031^^|20171205020542|||||||||16_neg^^99ROC~15_pos^^99R
OC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2|ST|HPV 16^HPV 16^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020542|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020542|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4|ST|71432-9^HPV-GT^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020542|||||||||16_neg^^99ROC~15_pos^^99ROC
```

```
OBX|5|ST|71432-9^HPV-GT^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|20171205020542|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: 3 targets positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144424||OUL^R22|8538398c-f4a8-4e94-8373-01fbe44ce325|P|2.5||||
||ASCII
SPM||R_39-16-18-BG+||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1|ST|Other HR HPV^Other HR HPV^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~U
nknown^Roche^^~ID_000000000012076380^IM300-001031^^|20171205020543|||||||||16_neg^^99ROC~15_pos^^99R
OC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2|ST|HPV 16^HPV 16^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020543|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020543|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4|ST|71432-9^HPV-GT^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020543|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|20171205020543|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: 3 targets negative

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144407||OUL^R22|6ab1339d-6dd7-41eb-80bc-2c3fd43f0f3f|P|2.5||||
||ASCII
SPM||R_39-16-18-BG-||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1||Other HR HPV^Other HR HPV^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-001031^^|20171205020547|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2||HPV 16^HPV 16^99ROC|||||C02H2|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001031^^|20171205020547|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3||HPV 18^HPV 18^99ROC|||||C02H3|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001031^^|20171205020547|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4||71432-9^HPV-GT^LN|1/1||||C02H1~C02H2~C02H3|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-001031^^|20171205020547|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|NA|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|20171205020547|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: 3 targets invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144347||OUL^R22|25b5a518-2b10-4200-b0a8-ac5a9b9f0f5a|P|2.5||||
||ASCII
SPM||R_39-16-18+BG+||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1|ST|Other HR HPV^Other HR HPV^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~U
nknown^Roche^^~ID_000000000012076380^IM300-001031^^|20171205020547|||||||||16_neg^^99ROC~15_pos^^99R
OC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

```
OBX|2|ST|HPV 16^HPV 16^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|201712050205470|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|201712050205470|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4|ST|71432-9^HPV-GT^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|201712050205470|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|201712050205470|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: 2 targets negative, 1 target positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144138||OUL^R22|77ef19a6-b88b-4f01-9a6d-70b308aba0ba|P|2.5||||
||ASCII
SPM||R_39-16+18+BG+||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1|ST|Other HR HPV^Other HR HPV^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~U
nknown^Roche^^~ID_000000000012076380^IM300-001031^^|201712050205450|||||||||16_neg^^99ROC~15_pos^^99R
OC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2|ST|HPV 16^HPV 16^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|201712050205450|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|201712050205450|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4|ST|71432-9^HPV-
GT^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076
380^IM300-001031^^|201712050205450|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|201712050205450|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: 1 target negative, 2 targets positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144250||OUL^R22|75a5890d-7700-4112-a5d5-8c341b56f1db|P|2.5||||
||ASCII
SPM||R_39-16-18+BG-||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1||Other HR HPV^Other HR HPV^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-001031^^|201712050205480|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2||HPV 16^HPV 16^99ROC|||||C02H2|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001031^^|201712050205480|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|201712050205480|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4||71432-9^HPV-GT^LN|1/1||||C02H1~C02H2|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-001031^^|201712050205480|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|NA|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|201712050205480|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: 2 targets invalid, 1 target positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144627||OUL^R22|74a48941-89a8-4ecf-96ea.h3258aff58e50|P|2.5|||
|||ASCII
SPM||C161420284101862372301||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1|ST|Other HR HPV^Other HR HPV^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~U
nknown^Roche^^~ID_000000000012076380^IM300-001031^^|20171205020538|||||||||16_neg^^99ROC~15_pos^^99R
OC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2|ST|HPV 16^HPV 16^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020538|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020538|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4|ST|71432-9^HPV-GT^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-001031^^|20171205020538|||||||||16_neg^^99ROC~15_pos^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001031^^|20171205020538|||||||||16_neg^^99ROC~15_pos^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: control HPV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144640||OUL^R22|906462d2-2e93-4766-b56c-95f2b7d50ac8|P|2.5||||
||ASCII
SPM||C161420284093021789533||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||71432-9^HPV-GT^LN|||||||A
OBX|1|ST|Other HR HPV^Other HR HPV^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~U
nknown^Roche^^~ID_000000000012076380^IM300-001031^^|20171205020537|||||||||16_neg^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|2|ST|HPV 16^HPV 16^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020537|||||||||16_neg^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|3|ST|HPV 18^HPV 18^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171205020537|||||||||16_neg^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
OBX|4|ST|71432-9^HPV-
GT^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001207
6380^IM300-001031^^|20171205020537|||||||||16_neg^^99ROC
OBX|5|ST|71432-9^HPV-GT^LN|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001031^^|20171205020537|||||||||16_neg^^99ROC
TCD|71432-9^HPV-GT^LN|^1^:^0
```

Example for HPV-GT: control (-) C

HPV-HR examples

HPV-HR is a qualitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144819||OUL^R22|1c8dd474-45a0-4e25-80dc-4f2cd8969c9d|P|2.5||||
||ASCII
SPM||RCCM_HR1_01||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||82675-0^HPV-HR^LN|||||||A
```

```
OBX|1|ST|HR HPV^HR HPV^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171209002735|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
OBX|2|ST|82675-0^HPV-HR^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171209002735|||||||||26_neg^^99ROC~25_pos^^99ROC
OBX|3|ST|82675-0^HPV-HR^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|20171209002735|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
```

Example for HPV-HR: positive

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144838||OUL^R22|78db667d-47a8-4382-acd4-2c8780d6f863|P|2.5||||
||ASCII
SPM||RCCM_HR10_01||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||82675-0^HPV-HR^LN|||||||A
OBX|1|ST|HR HPV^HR HPV^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171209002751|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
OBX|2|ST|82675-0^HPV-HR^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171209002751|||||||||26_neg^^99ROC~25_pos^^99ROC
OBX|3|ST|82675-0^HPV-HR^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|20171209002751|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
```

Example for HPV-HR: negative

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144904||OUL^R22|7bd9b93a-8e17-43b3-8dd6-070572a706a4|P|2.5||||
||ASCII
SPM||RCCM_HR8_03||RCCM^RocheCellCollectionMedia^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||82675-0^HPV-HR^LN|||||||A
OBX|1||HR HPV^HR HPV^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001031^^|20171209002749|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
OBX|2||82675-0^HPV-HR^LN|1/1||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM300-001031^^|20171209002749|||||||||26_neg^^99ROC~25_pos^^99ROC
OBX|3|ST|82675-0^HPV-HR^LN|1/2|NA|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-001031^^|20171209002749|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
```

Example for HPV-HR: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20180112144931||OUL^R22|96e6d70b-e69f-4e7c-bec1-0fefca3442e0|P|2.5||||
||ASCII
SPM||C161420284101862187702||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||82675-0^HPV-HR^LN|||||||A
OBX|1|ST|HR HPV^HR HPV^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171209002730|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
OBX|2|ST|82675-0^HPV-HR^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-001031^^|20171209002730|||||||||26_neg^^99ROC~25_pos^^99ROC
OBX|3|ST|82675-0^HPV-HR^LN|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001031^^|20171209002730|||||||||26_neg^^99ROC~25_pos^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
```

Example for HPV-HR: control HPV (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20180112145003||OUL^R22|4a0b8353-cd89-4d84-96e1-b218b638905c|P|2.5||||
||ASCII
SPM||C161420284098026375814||NULL|||||||Q|||||||||||||||
```

```
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||82675-0^HPV-HR^LN|||||||A
OBX|1|ST|HR HPV^HR HPV^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001031^^|20171209002729|||||||||26_neg^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
OBX|2|ST|82675-0^HPV-HR^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-001031^^|20171209002729|||||||||26_neg^^99ROC
OBX|3|ST|82675-0^HPV-HR^LN|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001031^^|20171209002729|||||||||26_neg^^99ROC
TCD|82675-0^HPV-HR^LN|^1^:^0
```

Example for HPV-HR: control (-) C

Qualitative assays – virology

In this section

HIV-1/2Qual-DBS examples (145)
HIV-1/2Qual-Serum/Plasma examples (147)
SARS-CoV-2 examples (149)
SCoV2-FluA/B examples (152)

HIV-1/2Qual-DBS examples

HIV1/2Qual-DBS is an example of a duplex qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170515093556||OUL^R22|19921e1eed58-458c-9e3e-35b1fdd7e5ae|P|2.5|||||
|ASCII
SPM||$00HX84X7||DBS^DriedBloodSpot^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
OBR|1|||85361-4^HIV-1-2-DBS^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005015^^|20170512102336|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005015^^|20170512102336|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|3|ST|85361-4^HIV-1-2-DBS^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM1000-005015^^|20170512102336|||||||||42_neg^^99ROC~41_pos^^99ROC
OBX|4|ST|85361-4^HIV-1-2-DBS^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005015^^|20170512102336|||||||||42_neg^^99ROC~41_pos^^99ROC
TCD|85361-4^HIV-1-2-DBS^LN|^1^:^0
```

Example for HIV-1/2Qual-DBS: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515093556||OUL^R22|df523278-9a00-41cb-9d55-a1cacf84f0d1|P|2.5|||
||ASCII
SPM||$00HX8LZZ||DBS^DriedBloodSpot^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||850|||uL^^UCUM
```

```
OBR|1|||85361-4^HIV-1-2-DBS^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005015^^|20170512102333|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005015^^|20170512102333|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|3|ST|85361-4^HIV-1-2-DBS^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM1000-005015^^|20170512102333|||||||||42_neg^^99ROC~41_pos^^99ROC
OBX|4|ST|85361-4^HIV-1-2-DBS^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM1000-005015^^|20170512102333|||||||||42_neg^^99ROC~41_pos^^99ROC
TCD|85361-4^HIV-1-2-DBS^LN|^1^:^0
```

Example for HIV-1/2Qual-DBS: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170515093556||OUL^R22|968a6f9e-6fd8-46c9-8ff0-221e11e0becd|P|2.5||||
||ASCII
SPM||$00HX8GMZ||DBS^DriedBloodSpot^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||85361-4^HIV-1-2-DBS^LN|||||||A
OBX|1||HIV 1^HIV 1^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-005015^^|20170512102334|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-4^HIV-1-2-
DBS^LN|^1^:^0
OBX|2||HIV 2^HIV 2^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-005015^^|20170512102334|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-4^HIV-1-2-
DBS^LN|^1^:^0
OBX|3||85361-4^HIV-1-2-DBS^LN|1/1||||Y40T~P01T~C02H1~C02H2|||X|||||Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM1000-005015^^|20170512102334|||||||||42_neg^^99ROC~41_pos^^99RO
C
OBX|4|ST|85361-4^HIV-1-2-DBS^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005015^^|20170512102334|||||||||42_neg^^99ROC~41_pos^^99ROC
TCD|85361-4^HIV-1-2-DBS^LN|^1^:^0
```

Example for HIV-1/2Qual-DBS: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170515093616||OUL^R22|5d32b4ba-28ab-4b83-bf54-50ba888a9434|P|2.5||||
||ASCII
SPM||C161420284087937340812||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85361-4^HIV-1-2-DBS^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170512102331|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|2|ST|85361-4^HIV-1-2-DBS^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM1000-005015^^|20170512102331|||||||||42_neg^^99ROC~41_pos^^99ROC
OBX|3|ST|85361-4^HIV-1-2-DBS^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM1000-005015^^|20170512102331|||||||||42_neg^^99ROC~41_pos^^99ROC
TCD|85361-4^HIV-1-2-DBS^LN|^1^:^0
```

Example for HIV-1/2Qual-DBS: control HIV-1 O (+)

```
MSH|^~\&|COBAS6800/8800||LIS||20170515093616||OUL^R22|445575f2-9be8-4cf7-92e3-deddc76cf397|P|2.5||||
||ASCII
SPM||C161420284087937340811||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
```

```
OBR|1|||85361-4^HIV-1-2-DBS^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170512102330|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170512102330|||||||||42_neg^^99ROC~41_pos^^99ROC TCD|85361-
4^HIV-1-2-DBS^LN|^1^:^0
OBX|3|ST|85361-4^HIV-1-2-DBS^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM1000-005015^^|20170512102330|||||||||42_neg^^99ROC~41_pos^^99ROC
OBX|4|ST|85361-4^HIV-1-2-DBS^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM1000-005015^^|20170512102330|||||||||42_neg^^99ROC~41_pos^^99ROC
TCD|85361-4^HIV-1-2-DBS^LN|^1^:^0
```

Example for HIV-1/2Qual-DBS: control HIV-1M/HIV-2 (+)

```
MSH|^~\&|COBAS6800/8800||LIS||20170515093616||OUL^R22|a95a77b0-e013-4ec2-83de-efd486888346|P|2.5||||
||ASCII
SPM||C161420284090390865071||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85361-4^HIV-1-2-DBS^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170512102329|||||||||42_neg^^99ROC TCD|85361-4^HIV-1-2-
DBS^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170512102329|||||||||42_neg^^99ROC TCD|85361-4^HIV-1-2-
DBS^LN|^1^:^0
OBX|3|ST|85361-4^HIV-1-2-DBS^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM1000-005015^^|20170512102329|||||||||42_neg^^99ROC
OBX|4|ST|85361-4^HIV-1-2-DBS^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM1000-005015^^|20170512102329|||||||||42_neg^^99ROC
TCD|85361-4^HIV-1-2-DBS^LN|^1^:^0
```

Example for HIV-1/2Qual-DBS: control (-) C

HIV-1/2Qual-Serum/Plasma examples

HIV-1/2Qual-Serum/Plamsa is an example of a duplex qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170516075912||OUL^R22|e6d83e70-647b-4561-941c-07b26f5dff1e|P|2.5||||
||ASCII
SPM||$00HX6DH8||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85368-9^HIV-1-2-PlaSer^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005015^^|20170515161705|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-
9^HIV-1-2-PlaSer^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005015^^|20170515161705|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-
9^HIV-1-2-PlaSer^LN|^1^:^0
OBX|3|ST|85368-9^HIV-1-2-PlaSer^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_000000000012076380^IM1000-005015^^|20170515161705|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|4|ST|85368-9^HIV-1-2-PlaSer^LN|1/2|Non-Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM1000-005015^^|20170515161705|||||||||46_neg^^99ROC~45_pos^^99ROC
```

```
TCD|85368-9^HIV-1-2-PlaSer^LN|^1^:^0
```

Example for HIV-1/2Qual-Serum/Plasma: non-reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170317082100||OUL^R22|39817237-fb29-4387-8464-57a0a0eb68ca|P|2.5||||
||ASCII
SPM||HIV-1M_02||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85368-9^HIV-1-2-PlaSer^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_00000000012076380^IM1000-005015^^|20170316143559|||||||||137_neg^^99ROC~136_pos^^99ROC TCD|85368-
9^HIV-1-2-PlaSer^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_00000000012076380^IM1000-005015^^|20170316143559|||||||||137_neg^^99ROC~136_pos^^99ROC
TCD|HIVQualPlaSer^HIVQualPlaSer^99ROC|^1^:^0
OBX|3|ST|85368-9^HIV-1-2-PlaSer^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_00000000012076380^IM1000-005015^^|20170316143559|||||||||137_neg^^99ROC~136_pos^^99ROC
OBX|4|ST|85368-9^HIV-1-2-PlaSer^LN|1/2|Reactive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_00000000012076380^IM1000-005015^^|20170316143559|||||||||137_neg^^99ROC~136_pos^^99ROC
TCD|85368-9^HIV-1-2-PlaSer^LN|^1^:^0
```

Example for HIV-1/2Qual-Serum/Plasma: reactive

```
MSH|^~\&|COBAS6800/8800||LIS||20170516075912||OUL^R22|075a5c62-f2f4-46b5-8448-cecca01de98a|P|2.5||||
||ASCII
SPM||$00HX69MH||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85368-9^HIV-1-2-PlaSer^LN|||||||A
OBX|1||HIV 1^HIV 1^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-005015^^|20170515161706|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-9^HIV-1-2-
PlaSer^LN|^1^:^0
OBX|2||HIV 2^HIV 2^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-005015^^|20170515161706|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-9^HIV-1-2-
PlaSer^LN|^1^:^0
OBX|3||85368-9^HIV-1-2-PlaSer^LN|1/1||||Y40T~P01T~C02H1~C02H2|||X|||||Validator||C6800/8800^Roche^^~
Unknown^Roche^^~ID_00000000012076380^IM1000-005015^^|20170515161706|||||||||46_neg^^99ROC~45_pos^^9
9ROC
OBX|4|ST|85368-9^HIV-1-2-PlaSer^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Ro
che^^~ID_00000000012076380^IM1000-005015^^|20170515161706|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85368-9^HIV-1-2-PlaSer^LN|^1^:^0
```

Example for HIV-1/2Qual-Serum/Plasma: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170516075922||OUL^R22|ee3a0c8bb21c-4bf9-9da5-e24fc6732886|P|2.5|||||
|ASCII
SPM||C1614202840879373408l4||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85368-9^HIV-1-2-PlaSer^LN|||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_00000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-
9^HIV-1-2-PlaSer^LN|^1^:^0
OBX|2|ST|85368-9^HIV-1-2-PlaSer^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_00000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|3|ST|85368-9^HIV-1-2-PlaSer^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_00000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85368-9^HIV-1-2-PlaSer^LN|^1^:^0
```

Example for HIV-1/2Qual-Serum/Plasma: control HIV-1 O (+)

```
MSH|^~\&|COBAS6800/8800||LIS||20170516075922||OUL^R22|c468caf2-7bcc-4f4b-93dc-9ae2f2a0feb7|P|2.5||||
||ASCII
SPM||C1614202840879373408l3||NULL|||||||Q|||||||||||||||
```

```
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85368-9^HIV-1-2-PlaSer^LN||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-
9^HIV-1-2-PlaSer^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC TCD|85368-
9^HIV-1-2-PlaSer^LN|^1^:^0
OBX|3|ST|85368-9^HIV-1-2-PlaSer^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC
OBX|4|ST|85368-9^HIV-1-2-PlaSer^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005015^^|20170515161703|||||||||46_neg^^99ROC~45_pos^^99ROC
TCD|85368-9^HIV-1-2-PlaSer^LN|^1^:^0
```

Example for HIV-1/2Qual-Serum/Plasma: control HIV-1M/HIV-2 (+)

```
MSH|^~\&|COBAS6800/8800||LIS||20170516075922||OUL^R22|7f8e3756-3623-442d-9881-78b8bb106ace|P|2.5||||
||ASCII
SPM||C1614202840903908650 72||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||85368-9^HIV-1-2-PlaSer^LN||||||A
OBX|1|ST|HIV 1^HIV 1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170515161701|||||||||46_neg^^99ROC TCD|85368-9^HIV-1-2-
PlaSer^LN|^1^:^0
OBX|2|ST|HIV 2^HIV 2^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005015^^|20170515161701|||||||||46_neg^^99ROC TCD|85368-9^HIV-1-2-
PlaSer^LN|^1^:^0
OBX|3|ST|85368-9^HIV-1-2-PlaSer^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unkno
wn^Roche^^~ID_000000000012076380^IM1000-005015^^|20170515161701|||||||||46_neg^^99ROC
OBX|4|ST|85368-9^HIV-1-2-PlaSer^LN|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005015^^|20170515161701|||||||||46_neg^^99ROC
TCD|85368-9^HIV-1-2-PlaSer^LN|^1^:^0
```

Example for HIV-1/2Qual-Serum/Plasma: control (-) C

SARS-CoV-2 examples

SARS-CoV-2 is a qualitative assay with 2 channels (targets). For each test order, the system returns 4 OBX segments in an OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20200423144137||OUL^R22|820bd837-cb49-4866-9bbc-cae2dcbdb025|P|2.5||||
||ASCII
SPM||SARS_COV2_20||CPM^cobas PCR Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005019^^|20200423023318|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005019^^|20200423023318|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3|ST|SARS-COV-2^SARS-COV-2^99ROC|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM1000-005019^^|20200423023318|||||||||10_neg^^99ROC~9_pos^^99ROC
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005019^^|20200423023318|||||||||10_neg^^99ROC~9_pos^^99ROC
```

```
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: negative Target 1 and 2

```
MSH|^~\&|COBAS6800/8800||LIS||20200423144027||OUL^R22|5d6b00e3-15b9-48ae-b49d-6606666f7b6a|P|2.5||||
||ASCII
SPM||SARS_COV2_14||CPM^cobas PCR Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3|ST|SARS-COV-2^SARS-COV-2^99ROC|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99RO
C
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: positive Target 1 and 2

```
MSH|^~\&|COBAS6800/8800||LIS||20200423144032||OUL^R22|a17d8b58-d220-4f8a-b475-12fdcbd39793|P|2.5||||
||ASCII
SPM||SARS_COV2_16||CPM^cobas PCR Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3|ST|SARS-COV-2^SARS-COV-2^99ROC|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99RO
C
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_0000000000012076380^IM1000-005019^^|20200423212733|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: positive Target 1 and negative Target 2

```
MSH|^~\&|COBAS6800/8800||LIS||20200423144127||OUL^R22|ce949704-9a11-44cb-8e2c-93f38d91ab61|P|2.5||||
||ASCII
SPM||SARS_COV2_18||CPM^cobas PCR Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3|ST|SARS-COV-2^SARS-COV-2^99ROC|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_0000000000012076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_0000000000012076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: negative Target 1 and positive Target 2

```
MSH|^~\&|COBAS6800/8800||LIS||20200423144147||OUL^R22|ef87922b-5e15-470e-bdf0-480f9e0e38b4|P|2.5||||
||ASCII
SPM||SARS_COV2_24||CPM^cobas PCR Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1||TGT1^TGT1^99ROC|||||Y40T|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2||TGT2^TGT2^99ROC|||||Y40T|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3||SARS-COV-2^SARS-COV-2^99ROC|1/1||||Y40T~P01T~C02H1~C02H2|||X|||||Supervisor||C6800/8800^Roche
^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^
^99ROC
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|NA|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005019^^|20200423023317|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: invalid Target 1 and 2

```
MSH|^~\&|COBAS6800/8800||LIS||20200423144007||OUL^R22|3820a367-bc39-4b77-9e53-7717d28902fc|P|2.5||||
||ASCII
SPM||C161420284107567349373||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005019^^|20200423212727|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005019^^|20200423212727|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3|ST|SARS-COV-2^SARS-COV-2^99ROC|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Un
known^Roche^^~ID_000000000012076380^IM1000-005019^^|20200423212727|||||||||18_neg^^99ROC~17_pos^^99R
OC
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM1000-005019^^|20200423212727|||||||||18_neg^^99ROC~17_pos^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: control SARS CoV 2 (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20200423143950||OUL^R22|6a783335-3a93-46cb-9e11-628d4c53ad0b|P|2.5||||
||ASCII
SPM||C161420284110540086841||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||SARS-COV-2^SARS-COV-2^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005019^^|20200423023311|||||||||10_neg^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005019^^|20200423023311|||||||||10_neg^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
OBX|3|ST|SARS-COV-2^SARS-COV-2^99ROC|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Un
known^Roche^^~ID_000000000012076380^IM1000-005019^^|20200423023311|||||||||10_neg^^99ROC
OBX|4|ST|SARS-COV-2^SARS-COV-2^99ROC|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM1000-005019^^|20200423023311|||||||||10_neg^^99ROC
TCD|SARS-COV-2^SARS-COV-2^99ROC|^1^:^0
```

Example for SARS-CoV-2: control (-) Ctrl

SCoV2-FluA/B examples

SCoV2-FluA/B is a qualitative assay with 4 target channels. For each test order, the system returns 6 OBX segments in an OUL^R22 message: 1 per target channel, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20200730183254||OUL^R22|e8ef51f1-be14-408b-91a7-222ecbd0edbe|P|2.5||||
||ASCII
SPM||SFLU138||VTM^Viral Transport Media^99ROC||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||95380-2^SCoVFlu^LN||||||A
OBX|1|ST|FluA^FluA^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|2|NA|FluA^FluA^99ROC^S_OTHER^Other Supplemental^IHELAW||25.02^26.13||||||F|||||Supervisor||C6800
/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^9
9ROC~305_pos^^99ROC
OBX|3|ST|SCoV2^SCoV2^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|4|NA|SCoV2^SCoV2^99ROC^S_OTHER^Other Supplemental^IHELAW||25.01^26.13||||||F|||||Supervisor||C68
00/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^
^99ROC~305_pos^^99ROC
OBX|5|ST|PanSarb^PanSarb^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|6|NA|PanSarb^PanSarb^99ROC^S_OTHER^Other Supplemental^IHELAW||25.02^26.13||||||F|||||Supervisor|
|C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_
neg^^99ROC~305_pos^^99ROC
OBX|7|ST|FluB^FluB^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|8|NA|FluB^FluB^99ROC^S_OTHER^Other Supplemental^IHELAW||25.02^26.13||||||F|||||Supervisor||C6800
/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^9
9ROC~305_pos^^99ROC
OBX|9|ST|95380-2^SCoVFlu^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
OBX|10|ST|95380-2^SCoVFlu^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
```

Example for SCoV2-FluA/B: all targets positive

```
MSH|^~\&|COBAS6800/8800||LIS||20200730183254||OUL^R22|e8ef51f1-be14-408b-91a7-222ecbd0edbe|P|2.5||||
||ASCII
SPM||SFLU139||VTM^Viral Transport Media^99ROC||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||95380-2^SCoVFlu^LN||||||A
OBX|1|ST|FluA^FluA^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|2|NA|FluA^FluA^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C6800/8800
^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~
305_pos^^99ROC
OBX|3|ST|SCoV2^SCoV2^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
```

```
OBX|4|NA|SCoV2^SCoV2^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C6800/88
00^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99RO
C~305_pos^^99ROC
OBX|5|ST|PanSarb^PanSarb^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|6|NA|PanSarb^PanSarb^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^
99ROC~305_pos^^99ROC
OBX|7|ST|FluB^FluB^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|8|NA|FluB^FluB^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C6800/8800
^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~
305_pos^^99ROC
OBX|9|ST|95380-2^SCoVFlu^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
OBX|10|ST|95380-2^SCoVFlu^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20200730153254|||||||||306_neg^^99ROC~305_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
```

Example for SCoV2-FluA/B: all targets negative

```
MSH|^~\&|COBAS6800/8800||LIS||20200730183254||OUL^R22|e8ef51f1-be14-408b-91a7-222ecbd0edbe|P|2.5||||
||ASCII
SPM||SFLU99||VTM^Viral Transport Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||95380-2^SCoVFlu^LN|||||||A
OBX|1|ST|FluA^FluA^99ROC||ValueNotSet|||POS|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|2|NA|FluA^FluA^99ROC^S_OTHER^Other Supplemental^IHELAW||25.02^26.13||||||F|||||Supervisor||C6800
/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^9
9ROC~303_pos^^99ROC
OBX|3|ST|SCoV2^SCoV2^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|4|NA|SCoV2^SCoV2^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C6800/88
00^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99RO
C~303_pos^^99ROC
OBX|5|ST|PanSarb^PanSarb^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|6|NA|PanSarb^PanSarb^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^
99ROC~303_pos^^99ROC
OBX|7|ST|FluB^FluB^99ROC||ValueNotSet|||NEG|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|8|NA|FluB^FluB^99ROC^S_OTHER^Other Supplemental^IHELAW||^26.13||||||F|||||Supervisor||C6800/8800
^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~
303_pos^^99ROC
OBX|9|ST|95380-2^SCoVFlu^LN|1/1|ValueNotSet|||NA|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~303_pos^^99ROC
OBX|10|ST|95380-2^SCoVFlu^LN|1/2|NA|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20200730142845|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
```

Example for SCoV2-FluA/B: only target FluA positive

```
MSH|^~\&|COBAS6800/8800||LIS||20200730183254||OUL^R22|e8ef51f1-be14-408b-91a7-
222ecbd0edbe|P|2.5||||||ASCII
SPM||SFLU7||VTM^Viral Transport Media^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||95380-2^SCoVFlu^LN|||||||A
OBX|1||FluA^FluA^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20200730142824|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|2||SCoV2^SCoV2^99ROC|||||C02H2|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20200730142824|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|3||PanSarb^PanSarb^99ROC|||||C02H3|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20200730142824|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|4||FluB^FluB^99ROC|||||C02H4|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-000007^^|20200730142824|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|5||95380-2^SCoVFlu^LN|1/1||||C02H1~C02H2~C02H3~C02H4|||X|||||Supervisor||C6800/8800^Roche^^~Unkn
own^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142824|||||||||304_neg^^99ROC~303_pos^^99RO
C
OBX|6|ST|95380-2^SCoVFlu^LN|1/2|NA|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-000007^^|20200730142824|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
```

Example for SCoV2-FluA/B: all targets invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20200730183254||OUL^R22|e8ef51f1-be14-408b-91a7-222ecbd0edbe|P|2.5||||
||ASCII
SPM||C1621271471355396969 81||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||95380-2^SCoVFlu^LN|||||||A
OBX|1|ST|FluA^FluA^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|2|NA|FluA^FluA^99ROC^S_OTHER^Other Supplemental^IHELAW||34.29^36.45||||||F|||||Supervisor||C6800
/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^9
9ROC~303_pos^^99ROC
OBX|3|ST|SCoV2^SCoV2^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|4|NA|SCoV2^SCoV2^99ROC^S_OTHER^Other Supplemental^IHELAW||34.28^36.45||||||F|||||Supervisor||C68
00/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^
^99ROC~303_pos^^99ROC
OBX|5|ST|PanSarb^PanSarb^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|6|NA|PanSarb^PanSarb^99ROC^S_OTHER^Other Supplemental^IHELAW||34.29^36.45||||||F|||||Supervisor|
|C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_
neg^^99ROC~303_pos^^99ROC
OBX|7|ST|FluB^FluB^99ROC||ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^99ROC~303_pos^^99ROC
TCD|95380-2^SCoVFlu^LN|^1^:^0
OBX|8|NA|FluB^FluB^99ROC^S_OTHER^Other Supplemental^IHELAW||34.29^36.45||||||F|||||Supervisor||C6800
/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^9
9ROC~303_pos^^99ROC
OBX|9|ST|95380-2^SCoVFlu^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^99ROC~303_pos^^99ROC
OBX|10|ST|95380-2^SCoVFlu^LN|1/2|Valid|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-000007^^|20200730142809|||||||||304_neg^^99ROC~303_pos^^99ROC
```

```
TCD|95380-2^SCoVFlu^LN|^1^:^0
```

Example for SCoV2-FluA/B: RMC valid

Quantitative assays – virology

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EBV examples (167)

CMV examples

CMV is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170724101833||OUL^R22|26eb8e45-c96a-4e29-8082-c7cd31070218|P|2.5||||
||ASCII
SPM||$00L9T2NW||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||350|||uL^^UCUM
OBR|1|||72493-0^CMV^LN|||||||A
OBX|1|ST|CMV^CMV^99ROC||ValueNotSet|||ND|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM1000-000607^^|20170721165235|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
OBX|2|ST|72493-0^CMV^LN|1/1|ValueNotSet|||NR|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM1000-000607^^|20170721165235|||||||||224_neg^^99ROC~223_pos^^99ROC
OBX|3|ST|72493-0^CMV^LN|1/2|Target Not Detected|||""|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-000607^^|20170721165235|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
```

Example for CMV: target not detected

```
MSH|^~\&|COBAS6800/8800||LIS||20170724102421||OUL^R22|cf71387d-3632-4a16-a4f2-8d4b1d8f5a3b|P|2.5||||
||ASCII
SPM||$00L9TKEK||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||350|||uL^^UCUM
OBR|1|||72493-0^CMV^LN|||||||A
OBX|1||CMV^CMV^99ROC|||||Y40T|||X|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001207638
0^IM1000-000607^^|20170721165233|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
OBX|2||72493-0^CMV^LN|1/1||||Y40T~P01T~C02H1|||X|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM1000-000607^^|20170721165233|||||||||224_neg^^99ROC~223_pos^^99ROC
OBX|3|ST|72493-0^CMV^LN|1/2|Invalid|||""|||X|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM1000-000607^^|20170721165233|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
```

Example for CMV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170724102319||OUL^R22|8d9fb615-46a1-4ef1-8ff0-5db2dab47d32|P|2.5||||
||ASCII
SPM||$00L9T65E||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||350|||uL^^UCUM
OBR|1|||72493-0^CMV^LN|||||||A
OBX|1|NM|CMV^CMV^99ROC||156|10*3.[iU]/mL^^UCUM|||||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-000607^^|20170721165231|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
OBX|2|ST|72493-0^CMV^LN|1/1|ValueNotSet|||RR|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM1000-000607^^|20170721165231|||||||||224_neg^^99ROC~223_pos^^99ROC
OBX|3|ST|72493-0^CMV^LN|1/2|Titer|||""|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM1000-000607^^|20170721165231|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
```

Example for CMV: titer

```
MSH|^~\&|COBAS6800/8800||LIS||20170724102506||OUL^R22|fe1c0ab0-8bf4-43b6-a67f-ac5d20d47d65|P|2.5||||
||ASCII
SPM||C161420284101836560562||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||350|||uL^^UCUM
OBR|1|||72493-0^CMV^LN|||||||A
OBX|1|NM|CMV^CMV^99ROC||358|10*0.[iU]/mL^^UCUM|||||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-000607^^|20170721165230|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
OBX|2|ST|72493-0^CMV^LN|1/1|ValueNotSet|||VAL|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
0000000012076380^IM1000-000607^^|20170721165230|||||||||224_neg^^99ROC~223_pos^^99ROC
OBX|3|ST|72493-0^CMV^LN|1/2|Titer|||""|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM1000-000607^^|20170721165230|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
```

Example for CMV: control CMV L (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170724102624||OUL^R22|10d4c217-9813-4cbd-b122-6fdc9b597943|P|2.5||||
||ASCII
SPM||C161420284101836560561||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||350|||uL^^UCUM
OBR|1|||72493-0^CMV^LN|||||||A
OBX|1|NM|CMV^CMV^99ROC||289|10*3.[iU]/mL^^UCUM|||||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~I
D_0000000000012076380^IM1000-000607^^|20170721165229|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
OBX|2|ST|72493-0^CMV^LN|1/1|ValueNotSet|||VAL|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
0000000012076380^IM1000-000607^^|20170721165229|||||||||224_neg^^99ROC~223_pos^^99ROC
OBX|3|ST|72493-0^CMV^LN|1/2|Titer|||""|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000
0012076380^IM1000-000607^^|20170721165229|||||||||224_neg^^99ROC~223_pos^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
```

Example for CMV: control CMV H (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170724102655||OUL^R22|46759faa-7a3e-480c-acd6-01a8bb5f1629|P|2.5||||
||ASCII
SPM||C161420284090428912393||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||350|||uL^^UCUM
OBR|1|||72493-0^CMV^LN|||||||A
OBX|1|ST|CMV^CMV^99ROC||ValueNotSet|||ND|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM1000-000607^^|20170721165228|||||||||224_neg^^99ROC
TCD|72493-0^CMV^LN|^1^:^0
OBX|2|ST|72493-0^CMV^LN|1/1|ValueNotSet|||VAL|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
0000000012076380^IM1000-000607^^|20170721165228|||||||||224_neg^^99ROC
OBX|3|ST|72493-0^CMV^LN|1/2|Target Not Detected|||""|||F|||||techv||C6800/8800^Roche^^~Unknown^Roche
^^~ID_0000000000012076380^IM1000-000607^^|20170721165228|||||||||224_neg^^99ROC
```

```
TCD|72493-0^CMV^LN|^1^:^0
```

Example for CMV: Control (-) C

HBV examples

HBV is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170920180602||OUL^R22|3245a92a-1e7c-463e-841f-a53bb03b0383|P|2.5||||
||ASCII
SPM||HBV_sample3||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||42595-9^HBV^LN|||||||A
OBX|1||HBV^HBV^99ROC|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-006667^^|20170920155130|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
OBX|2||42595-9^HBV^LN|1/1||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300-006667^^|20170920155130|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
OBX|3|ST|42595-9^HBV^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006667^^|20170920155130|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
```

Example for HBV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170920180602||OUL^R22|82f43b98-0138-4184-aaa1-b4e43fa56491|P|2.5||||
||ASCII
SPM||C1621285435641741586 81||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||42595-9^HBV^LN|||||||A
OBX|1|NM|HBV^HBV^99ROC||107|10*4.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-006667^^|20170920155129|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
OBX|2|ST|42595-9^HBV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006667^^|20170920155129|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
OBX|3|ST|42595-9^HBV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006667^^|20170920155129|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
```

Example for HBV: control HxV H (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170920180602||OUL^R22|63039088-cca3-4b53-985d-7df12759f6d5|P|2.5||||
||ASCII
SPM||C1621285435641741586 82||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||42595-9^HBV^LN|||||||A
OBX|1|NM|HBV^HBV^99ROC||823|10*-1.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-006667^^|20170920155128|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
OBX|2|ST|42595-9^HBV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006667^^|20170920155128|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
OBX|3|ST|42595-9^HBV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006667^^|20170920155128|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
```

Example for HBV: Control HxV L (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170920180602||OUL^R22|e299c288-623b-4b14-95f2-fe29fc248fd5|P|2.5||||
||ASCII
SPM||HBV_sample2||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||42595-9^HBV^LN|||||||A
OBX|1|ST|HBV^HBV^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006667^^|20170920155130|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
OBX|2|ST|42595-9^HBV^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006667^^|20170920155130|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
OBX|3|ST|42595-9^HBV^LN|1/2|Target Not Detected|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-006667^^|20170920155130|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
```

Example for HBV: target not detected

```
MSH|^~\&|COBAS6800/8800||LIS||20170920180602||OUL^R22|c7ba51b5-67a0-477e-b7c6-129e9cf82767|P|2.5||||
||ASCII
SPM||HBV_sample5||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||42595-9^HBV^LN|||||||A
OBX|1|NM|HBV^HBV^99ROC||820|10*2.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
000000000012076380^IM300-006667^^|20170920155131|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
OBX|2|ST|42595-9^HBV^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006667^^|20170920155131|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
OBX|3|ST|42595-9^HBV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006667^^|20170920155131|||||||||1243974_neg^^99ROC~1243973_pos^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
```

Example for HBV: titer

```
MSH|^~\&|COBAS6800/8800||LIS||20170920180610||OUL^R22|56668b8f-cdc3-465c-8e47-ff64ba375e37|P|2.5||||
||ASCII
SPM||C162127827366733414411||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||42595-9^HBV^LN|||||||A
OBX|1|ST|HBV^HBV^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006667^^|20170920155128|||||||||1243974_neg^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
OBX|2|ST|42595-9^HBV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006667^^|20170920155128|||||||||1243974_neg^^99ROC
OBX|3|ST|42595-9^HBV^LN|1/2|Target Not Detected|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-006667^^|20170920155128|||||||||1243974_neg^^99ROC
TCD|42595-9^HBV^LN|^1^:^0
```

Example for HBV: control (-) C

HCV examples

HCV is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in a OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the overall interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20161130100155||OUL^R22|9daa6c20-454b-47d0-821a-50128d638075|P|2.5||||
||ASCII
SPM||$005D7F06||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
```

```
OBR|1|||11011-4^HCV^LN|||||||A
OBX|1||HCV^HCV^99ROC|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-006666^^|20161129172118|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
OBX|2||11011-4^HCV^LN|1/1||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300-006666^^|20161129172118|||||||||22_neg^^99ROC~21_pos^^99ROC
OBX|3|ST|11011-4^HCV^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129172118|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
```

Example for HCV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20161130100217||OUL^R22|5e8dcb4c-2d3b-4cda-9997-ab322de02407|P|2.5||||
||ASCII
SPM||$005D7F19||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||11011-4^HCV^LN|||||||A
OBX|1|ST|HCV^HCV^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129172116|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
OBX|2|ST|11011-4^HCV^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161129172116|||||||||22_neg^^99ROC~21_pos^^99ROC
OBX|3|ST|11011-4^HCV^LN|1/2|Target Not Detected|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-006666^^|20161129172116|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
```

Example for HCV: target not detected

```
MSH|^~\&|COBAS6800/8800||LIS||20161130100255||OUL^R22|f57e3d21-eb09-4067-ad02-f326df71e79c|P|2.5||||
||ASCII
SPM||$005D7FPE||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||11011-4^HCV^LN|||||||A
OBX|1|NM|HCV^HCV^99ROC||991|10*1.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
000000000012076380^IM300-006666^^|20161129172117|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
OBX|2|ST|11011-4^HCV^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161129172117|||||||||22_neg^^99ROC~21_pos^^99ROC
OBX|3|ST|11011-4^HCV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161129172117|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
```

Example for HCV: titer

```
MSH|^~\&|COBAS6800/8800||LIS||20161130100143||OUL^R22|5f2db6c5-cc36-44af-8f97-19ec94b8c1f2|P|2.5||||
||ASCII
SPM||C162128695980919357551||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||11011-4^HCV^LN|||||||A
OBX|1|ST|HCV^HCV^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161129172113|||||||||22_neg^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
OBX|2|ST|11011-4^HCV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161129172113|||||||||22_neg^^99ROC
OBX|3|ST|11011-4^HCV^LN|1/2|Target Not Detected|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-006666^^|20161129172113|||||||||22_neg^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
```

Example for HCV: control (-) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161130100143||OUL^R22|901d5bab-cbb8-4adc-9a88-b5f81fd961ee|P|2.5||||
||ASCII
```

```
SPM||C162127663172996999943||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||11011-4^HCV^LN|||||||A
OBX|1|NM|HCV^HCV^99ROC||125|10*4.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-006666^^|20161129172115|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
OBX|2|ST|11011-4^HCV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161129172115|||||||||22_neg^^99ROC~21_pos^^99ROC
OBX|3|ST|11011-4^HCV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161129172115|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
```

Example for HCV: control HxV H (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161130100143||OUL^R22|62c44b38-46fc-4458-877b-9c9edc39b108|P|2.5||||
||ASCII
SPM||C162127663172996999944||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||11011-4^HCV^LN|||||||A
OBX|1|NM|HCV^HCV^99ROC||656|10*-1.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-006666^^|20161129172114|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
OBX|2|ST|11011-4^HCV^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161129172114|||||||||22_neg^^99ROC~21_pos^^99ROC
OBX|3|ST|11011-4^HCV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161129172114|||||||||22_neg^^99ROC~21_pos^^99ROC
TCD|11011-4^HCV^LN|^1^:^0
```

Example for HCV: control HxV L (+) C

HIV-1 examples

HIV-1 is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170921124056||OUL^R22|5ca48887-067f-493f-a1ed-bc144aef6b43|P|2.5||||
||ASCII
SPM||$00MWM5XN||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1||HIV^HIV^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120
76380^IM1000-005014^^|20170912144716|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2||70241-5^HIV^LN|1/1||||Y40T~P01T~C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005014^^|20170912144716|||||||||115_neg^^99ROC~114_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM1000-005014^^|20170912144716|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV-1: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170921124056||OUL^R22|a29e8314-dd2c-4be4-b02d-f104fe3cc6be|P|2.5||||
||ASCII
SPM||$00MWM8WN||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
```

```
OBX|1|NM|HIV^HIV^99ROC||124|10*1.[iU]/mL^^UCUM|||||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005014^^|20170912144717|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|ST|70241-5^HIV^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005014^^|20170912144717|||||||||115_neg^^99ROC~114_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/2|Titer|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM1000-005014^^|20170912144717|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV-1: HIV-1 positive within the linear range

```
MSH|^~\&|COBAS6800/8800||LIS||20170921124104||OUL^R22|5f7809d4-332e-4552-8f8d-15e377b4342e|P|2.5||||
||ASCII
SPM||C1614202840842060100002||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||ND|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
000000000012076380^IM1000-005014^^|20170912144714|||||||||115_neg^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|ST|70241-5^HIV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005014^^|20170912144714|||||||||115_neg^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/2|Target Not Detected|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM1000-005014^^|20170912144714|||||||||115_neg^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV: control (-) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170921124104||OUL^R22|0fab64db-af17-4927-982f-dd1584f68c72|P|2.5||||
||ASCII
SPM||C1614202840911998748 33||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1|NM|HIV^HIV^99ROC||303|10*3.[iU]/mL^^UCUM|||||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005014^^|20170912144715|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|ST|70241-5^HIV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005014^^|20170912144715|||||||||115_neg^^99ROC~114_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/2|Titer|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM1000-005014^^|20170912144715|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV: control HxV H (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170921124104||OUL^R22|67fc7e09-b0d1-4313-b77c-868e28e36491|P|2.5||||
||ASCII
SPM||C1614202840911998748 34||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1|NM|HIV^HIV^99ROC||717|10*0.[iU]/mL^^UCUM|||||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005014^^|20170912144715|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|ST|70241-5^HIV^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM1000-005014^^|20170912144715|||||||||115_neg^^99ROC~114_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/2|Titer|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000
00000012076380^IM1000-005014^^|20170912144715|||||||||115_neg^^99ROC~114_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV: control HxV L (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170921124118||OUL^R22|eb653250-42d1-4dcc-8ce0-53d36b69dcbc|P|2.5||||
||ASCII
SPM||$00MWNCK3||PLAS^plasma^HL70487|||||||P|||||||||||||||
```

```
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||ND|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM1000-005014^^|20170908105808|||||||||85_neg^^99ROC~84_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|ST|70241-5^HIV^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005014^^|20170908105808|||||||||85_neg^^99ROC~84_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/2|Target Not Detected|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM1000-005014^^|20170908105808|||||||||85_neg^^99ROC~84_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV: target not detected

HIV-PSC examples

HIV-PSC is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134339||OUL^R22|7e614284-9312-4135-a706-480ab777bab2|P|2.5||||
||ASCII
SPM||3_DS3_PM4_48||PSEPC^Plasma Separation Card^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||ND|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001020^^|20170804165942|||||||||839_neg^^99ROC~838_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2|ST|70241-5^HIVPSC^LN|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001020^^|20170804165942|||||||||839_neg^^99ROC~838_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Target Not Detected|||""|||F|||||Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_000000000012076380^IM300-001020^^|20170804165942|||||||||839_neg^^99ROC~838_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: negative for HIV-1

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134213||OUL^R22|cbc8efe8-0b8b-4d69-bd1f-1737dd73f603|P|2.5||||
||ASCII
SPM||3_12_PM5a_03||PSEPC^Plasma Separation Card^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||BT|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001020^^|20170817113030|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2|ST|70241-5^HIVPSC^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001020^^|20170817113030|||||||||865_neg^^99ROC~864_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|< Titer min|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001020^^|20170817113030|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: positive for HIV-1 with a concentration below LLOQ

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134213||OUL^R22|c5ffa20b-380c-4af5-a346-601e206f7616|P|2.5||||
||ASCII
SPM||3_12_PM5a_04||PSEPC^Plasma Separation Card^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1|NM|HIV^HIV^99ROC||105|10*1.{Copies}/mL^^UCUM|||||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM300-001020^^|20170817113030|||||||||865_neg^^99ROC~864_pos^^99ROC
```

```
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2|ST|70241-5^HIVPSC^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001020^^|20170817113030|||||||||865_neg^^99ROC~864_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Titer|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001020^^|20170817113030|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: positive for HIV-1 with a concentration within linear range

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134213||OUL^R22|6850b78d-4c5d-4aa5-8f8f-9f73d8444539|P|2.5||||
||ASCII
SPM||1_12_PM1_03||PSEPC^Plasma Separation Card^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||AT|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001020^^|20170817113027|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2|ST|70241-5^HIVPSC^LN|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001020^^|20170817113027|||||||||865_neg^^99ROC~864_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|> Titer max|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM300-001020^^|20170817113027|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: positive for HIV-1 with a concentration above ULOQ

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134550||OUL^R22|5ee6a09b-2ede-4858-adcf-6ab6068d3cc0|P|2.5||||
||ASCII
SPM||1_DS1_PM1_11||PSEPC^Plasma Separation Card^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1||HIV^HIV^99ROC|||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-001020^^|20170802204842|||||||||819_neg^^99ROC~818_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2||70241-5^HIVPSC^LN|1/1||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-001020^^|20170802204842|||||||||819_neg^^99ROC~818_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM300-001020^^|20170802204842|||||||||819_neg^^99ROC~818_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134216||OUL^R22|2532c26a-6ca8-4e8e-9658-475017212262|P|2.5||||
||ASCII
SPM||C1614202840904287114O3||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||ND|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001020^^|20170817113020|||||||||865_neg^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2|ST|70241-5^HIVPSC^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001020^^|20170817113020|||||||||865_neg^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Target Not Detected|||""|||F|||||Validator||C6800/8800^Roche^^~Unknow
n^Roche^^~ID_000000000012076380^IM300-001020^^|20170817113020|||||||||865_neg^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: (-) control: valid

```
MSH|^~\&|COBAS6800/8800||LIS||20170824102618||OUL^R22|43c7bdc0-dfd9-44f8-8853-ed7ed705e797|P|2.5||||
||ASCII
SPM||C1614202840842057145S4||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
```

```
OBX|1||HIV^HIV^99ROC|||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM1000-005015^^|20170809162408|||||||||510_neg^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2||70241-5^HIVPSC^LN|1/1||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM1000-005015^^|20170809162408|||||||||510_neg^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM1000-005015^^|20170809162408|||||||||510_neg^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: (-) control: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20170822134213||OUL^R22|d925820b-c1d9-4c1e-a3fc-059f05b0ed86|P|2.5||||
||ASCII
SPM||C161420284093034679643||NULL||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1|NM|HIV^HIV^99ROC||239|10*3.{Copies}/mL^^UCUM|||||F|||||Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM300-001020^^|20170817113021|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2|ST|70241-5^HIVPSC^LN|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001020^^|20170817113021|||||||||865_neg^^99ROC~864_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Titer|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-001020^^|20170817113021|||||||||865_neg^^99ROC~864_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: HxV (+) control: valid

```
MSH|^~\&|COBAS6800/8800||LIS||20170824102604||OUL^R22|1438d97b-440b-45c0-8fcf-45b3d6d47af6|P|2.5||||
||ASCII
SPM||C161420284091199347182||NULL||||||Q|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIVPSC^LN|||||||A
OBX|1||HIV^HIV^99ROC|||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM1000-005015^^|20170809150142|||||||||506_neg^^99ROC~505_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
OBX|2||70241-5^HIVPSC^LN|1/1||||C02H1|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM1000-005015^^|20170809150142|||||||||506_neg^^99ROC~505_pos^^99ROC
OBX|3|ST|70241-5^HIVPSC^LN|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM1000-005015^^|20170809150142|||||||||506_neg^^99ROC~505_pos^^99ROC
TCD|70241-5^HIVPSC^LN|^1^:^0
```

Example for HIV-PSC: HxV (+) control: invalid

BKV examples

BKV is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20190708095857||OUL^R22|23228c59-8bd5-419a-aad0-e03530ea9b2f|P|2.5||||
||ASCII
SPM||SampleID_B||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1|ST|BKV^BKV^99ROC||ValueNotSet|||ND|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20190708074434|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

```
OBX|2|ST|32284-2^BKV^LN|1/1|ValueNotSet|||NR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190708074434|||||||||54_neg^^99ROC~53_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|Target Not Detected|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20190708074434|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV: negative for BKV

```
MSH|^~\&|COBAS6800/8800||LIS||20190708095822||OUL^R22|6445e2c0-5c61-4bab-b0d5-7854a4a29eda|P|2.5||||
||ASCII
SPM||SampleID_D||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||200|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1|ST|BKV^BKV^99ROC||ValueNotSet|||BT|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20190708074435|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2|ST|32284-2^BKV^LN|1/1|ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190708074435|||||||||54_neg^^99ROC~53_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|< Titer min|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190708074435|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV: positive for BKV with a concentration below LLOQ

```
MSH|^~\&|COBAS6800/8800||LIS||20190708095822||OUL^R22|b557b616-e96d-4b8a-8b86-c2ad742b4c89|P|2.5||||
||ASCII
SPM||SampleID_A||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||200|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1|NM|BKV^BKV^99ROC||391|10*0.[iU]/mL^^UCUM|||||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20190708074433|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2|ST|32284-2^BKV^LN|1/1|ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190708074433|||||||||54_neg^^99ROC~53_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|Titer|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20190708074433|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV: positive for BKV with a concentration within the linear range

```
MSH|^~\&|COBAS6800/8800||LIS||20190708095927||OUL^R22|17becca2-0d18-4db1-b2f7-d22fe5299c7c|P|2.5||||
||ASCII
SPM||SampleID_C||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||200|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1||BKV^BKV^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-000007^^|20190708074434|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2||32284-2^BKV^LN|1/1||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20190708074434|||||||||54_neg^^99ROC~53_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|Invalid|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20190708074434|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20191030110510||OUL^R22|d3aabea3-8ac4-4e33-8e16-a559358c2b64|P|2.5||||
||ASCII
SPM||Urine_BKV_01||UR^Urine^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
```

```
OBX|1|NM|BKV^BKV^99ROC||153|10*1.[iU]/mL^^UCUM|||||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20191030085154|||||||||114_neg^^99ROC~113_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2|NA|BKV^BKV^99ROC^S_OTHER^Other Supplemental^IHELAW||35.79^^37.32||||||F|||||Supervisor||C6800/
8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20191030085154|||||||||114_neg^^99
ROC~113_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/1|ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20191030085154|||||||||114_neg^^99ROC~113_pos^^99ROC
OBX|4|ST|32284-2^BKV^LN|1/2|Titer|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20191030085154|||||||||114_neg^^99ROC~113_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV Urine: positive for BKV with a concentration within the linear range

```
MSH|^~\&|COBAS6800/8800||LIS||20191030110510||OUL^R22|5c6f62a5-1e3c-4de0-ae2d-145e03f64b11|P|2.5||||
||ASCII
SPM||Urine_BKV_03||UR^Urine^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1|ST|BKV^BKV^99ROC||ValueNotSet|||BT|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20191030085155|||||||||114_neg^^99ROC~113_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2|NA|BKV^BKV^99ROC^S_OTHER^Other Supplemental^IHELAW||42.73^^37.32||||||F|||||Supervisor||C6800/
8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-000007^^|20191030085155|||||||||114_neg^^99
ROC~113_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/1|ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20191030085155|||||||||114_neg^^99ROC~113_pos^^99ROC
OBX|4|ST|32284-2^BKV^LN|1/2|< Titer min|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20191030085155|||||||||114_neg^^99ROC~113_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV Urine: positive for BKV with a concentration below LLOQ

```
MSH|^~\&|COBAS6800/8800||LIS||20191030110510||OUL^R22|3af19f9a-601e-40c8-84c5-26ffc157d41f|P|2.5||||
||ASCII
SPM||Urine_BKV_05||UR^Urine^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||400|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1||BKV^BKV^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-000007^^|20191030085154|||||||||114_neg^^99ROC~113_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2||32284-2^BKV^LN|1/1||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20191030085154|||||||||114_neg^^99ROC~113_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|Invalid|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20191030085154|||||||||114_neg^^99ROC~113_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV Urine: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20190708095957||OUL^R22|972f4791-7de9-45e8-b7a3-80cc3287df3b|P|2.5||||
||ASCII
SPM||C162126771836107557571||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||200|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1|NM|BKV^BKV^99ROC||143|10*3.[iU]/mL^^UCUM|||||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20190708074433|||||||||54_neg^^99ROC~53_pos^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2|ST|32284-2^BKV^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20190708074433|||||||||54_neg^^99ROC~53_pos^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|Titer|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20190708074433|||||||||54_neg^^99ROC~53_pos^^99ROC
```

```
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV: control EBV/BKV H (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20190708095957||OUL^R22|37b6d324-2e55-4239-a9f4-48ffc58111ac|P|2.5||||
||ASCII
SPM||C162128660707941911391||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||32284-2^BKV^LN|||||||A
OBX|1|ST|BKV^BKV^99ROC||ValueNotSet|||ND|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20190708074432|||||||||54_neg^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
OBX|2|ST|32284-2^BKV^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20190708074432|||||||||54_neg^^99ROC
OBX|3|ST|32284-2^BKV^LN|1/2|Target Not Detected|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20190708074432|||||||||54_neg^^99ROC
TCD|32284-2^BKV^LN|^1^:^0
```

Example for BKV: control (-) Ctrl

EBV examples

EBV is a quantitative single-channel assay. For each test order, the system returns 3 OBX segments in an OUL^R22 message: 1 for the single channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20190705102248||OUL^R22|5c90cf0b-eff1-4aa5-9541-f906598e2ffb|P|2.5||||
||ASCII
SPM||SampleID_B||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||43730-1^EBV^LN|||||||A
OBX|1|ST|EBV^EBV^99ROC||ValueNotSet|||ND|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
00000000012076380^IM300-000007^^|20190705074347|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
OBX|2|ST|43730-1^EBV^LN|1/1|ValueNotSet|||NR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190705074347|||||||||50_neg^^99ROC~49_pos^^99ROC
OBX|3|ST|43730-1^EBV^LN|1/2|Target Not Detected|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20190705074347|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
```

Example for EBV: negative for EBV

```
MSH|^~\&|COBAS6800/8800||LIS||20190705102218||OUL^R22|125d6dba-3684-48e1-94a8-0a679a5971c8|P|2.5||||
||ASCII
SPM||SampleID_A||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||43730-1^EBV^LN|||||||A
OBX|1|NM|EBV^EBV^99ROC||691|10*0.[iU]/mL^^UCUM|||||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20190705074346|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
OBX|2|ST|43730-1^EBV^LN|1/1|ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190705074346|||||||||50_neg^^99ROC~49_pos^^99ROC
OBX|3|ST|43730-1^EBV^LN|1/2|Titer|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20190705074346|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
```

Example for EBV: positive for EBV with a concentration within the linear range

```
MSH|^~\&|COBAS6800/8800||LIS||20190705102318||OUL^R22|f5e78027-2da1-4493-87d5-d6cf50af0e2c|P|2.5||||
||ASCII
SPM||SampleID_E||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||43730-1^EBV^LN|||||||A
OBX|1|ST|EBV^EBV^99ROC||ValueNotSet|||AT|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
0000000012076380^IM300-000007^^|20190705074348|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
OBX|2|ST|43730-1^EBV^LN|1/1|ValueNotSet|||RR|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190705074348|||||||||50_neg^^99ROC~49_pos^^99ROC
OBX|3|ST|43730-1^EBV^LN|1/2|> Titer max|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~
ID_000000000012076380^IM300-000007^^|20190705074348|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
```

Example for EBV: positive for EBV with a concentration above ULOQ

```
MSH|^~\&|COBAS6800/8800||LIS||20190705102318||OUL^R22|11393978-8874-467a-b9ce-a2c279a4e8b2|P|2.5||||
||ASCII
SPM||SampleID_C||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||43730-1^EBV^LN|||||||A
OBX|1||EBV^EBV^99ROC|||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM300-000007^^|20190705074347|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
OBX|2||43730-1^EBV^LN|1/1||||C02H1|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000
00012076380^IM300-000007^^|20190705074347|||||||||50_neg^^99ROC~49_pos^^99ROC
OBX|3|ST|43730-1^EBV^LN|1/2|Invalid|||""|||X|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
0000000012076380^IM300-000007^^|20190705074347|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
```

Example for EBV: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20190705102348||OUL^R22|0dfdfa73-9965-4e02-b8fc-192551a84501|P|2.5||||
||ASCII
SPM||C162126771836107557544||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||43730-1^EBV^LN|||||||A
OBX|1|NM|EBV^EBV^99ROC||333|10*0.[iU]/mL^^UCUM|||||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM300-000007^^|20190705074344|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
OBX|2|ST|43730-1^EBV^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20190705074344|||||||||50_neg^^99ROC~49_pos^^99ROC
OBX|3|ST|43730-1^EBV^LN|1/2|Titer|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_000
000000012076380^IM300-000007^^|20190705074344|||||||||50_neg^^99ROC~49_pos^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
```

Example for EBV: control EBV/BKV L (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20190705102348||OUL^R22|00cb5dea-a935-4b26-a6b6-68194d744686|P|2.5||||
||ASCII
SPM||C162128660707941911422||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||200|||uL^^UCUM
OBR|1|||43730-1^EBV^LN|||||||A
OBX|1|ST|EBV^EBV^99ROC||ValueNotSet|||ND|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^~ID_0
0000000012076380^IM300-000007^^|20190705074343|||||||||50_neg^^99ROC
TCD|43730-1^EBV^LN|^1^:^0
OBX|2|ST|43730-1^EBV^LN|1/1|ValueNotSet|||VAL|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-000007^^|20190705074343|||||||||50_neg^^99ROC
OBX|3|ST|43730-1^EBV^LN|1/2|Target Not Detected|||""|||F|||||Supervisor||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM300-000007^^|20190705074343|||||||||50_neg^^99ROC
```

```
TCD|43730-1^EBV^LN|^1^:^0
```

Example for EBV: control (-) Ctrl

Qualitative and quantitative assays

In this section

DPX examples (169)

DPX examples

DPX is a dual-channel assay that consists of a quantitative (Parvovirus B19) and a qualitative (HAV) assay. For each test order, the system returns 5 OBX segments in a OUL^R22 message: 1 per channel result, 1 for the overall result, 1 for the result interpretation, and 1 for the cut-off value.

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084619||OUL^R22|367392d3-8028-461f-ab05-4bd78340744b|P|2.5||||
||ASCII
SPM||$005D7FTM||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1||HAV^HAV^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM3
00-006666^^|20161124110348|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2||B19^B19^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM3
00-006666^^|20161124110348|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3||B19^B19^99ROC|||||Q02|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM3
00-006666^^|20161124110348|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4||75540-5^DPX^LN|1/1||||Q02~C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161124110348|||||||||10_neg^^99ROC~9_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124110348|||||||||10_neg^^99ROC~9_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084514||OUL^R22|a2854838-2c85-41e3-985c-a9ab1e02c1d3|P|2.5||||
||ASCII
SPM||$005D7F96||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131840|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|ST|B19^B19^99ROC||ValueNotSet|||BCO|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131840|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3|NM|B19^B19^99ROC||102|10*1.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-006666^^|20161124131840|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

```
OBX|4|ST|75540-5^DPX^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161124131840|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/2|Non-Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161124131840|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: B19 titer non-reactive (<cut off value)

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084514||OUL^R22|a5fdfea5-95e4-4c27-a55a-3edc979edca0|P|2.5||||
||ASCII
SPM||$005D7EKZ||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1||HAV^HAV^99ROC|||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^I
M300-006666^^|20161124131842|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2||B19^B19^99ROC|||||ACO|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM3
00-006666^^|20161124131842|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3||B19^B19^99ROC|||||AT|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM30
0-006666^^|20161124131842|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4||75540-5^DPX^LN|1/1||||C02H1|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000120763
80^IM300-006666^^|20161124131842|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/2|Invalid|||""|||X|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131842|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: B19 above titer max (> cut off) and HAV invalid

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084514||OUL^R22|92b20f97-4266-4786-aa08-e73fed5e6d2b|P|2.5||||
||ASCII
SPM||$005D7FC9||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131836|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|ST|B19^B19^99ROC||ValueNotSet|||ACO|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131836|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3|NM|B19^B19^99ROC||367|10*2.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-006666^^|20161124131836|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|ST|75540-5^DPX^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161124131836|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/2|Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131836|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: B19 titer reactive (>= cut off value)

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084516||OUL^R22|d7b8f154-999f-4acb-b4c5-b62b1d3dfa73|P|2.5||||
||ASCII
SPM||$005D7F19||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131832|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

```
OBX|2|ST|B19^B19^99ROC||ValueNotSet|||BCO|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131832|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3|ST|B19^B19^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131832|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|ST|75540-5^DPX^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161124131832|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/2|Non-Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161124131832|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: B19 target non detected, non-reactive (< cut off value)

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084529||OUL^R22|805f6769-294c-461f-b097-654879f58917|P|2.5||||
||ASCII
SPM||C162127135407415667464||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131831|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|NM|B19^B19^99ROC||637|10*3.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-006666^^|20161124131831|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3|ST|75540-5^DPX^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161124131831|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|4|ST|75540-5^DPX^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161124131831|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: control DPX D(+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084529||OUL^R22|568977c8-6314-4b06-b5d2-be7646d8ccb8|P|2.5||||
||ASCII
SPM||C162127135407415667463||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|NM|B19^B19^99ROC||588|10*4.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
00000000012076380^IM300-006666^^|20161124131830|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|ST|75540-5^DPX^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161124131830|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|3|ST|75540-5^DPX^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161124131830|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: control DPX H(+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084529||OUL^R22|48bcd479-a08a-4d6c-bd47-cd47666f9750|P|2.5||||
||ASCII
SPM||C1621273113292761116222||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131828|||||||||12_neg^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|ST|B19^B19^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131828|||||||||12_neg^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

```
OBX|3|ST|75540-5^DPX^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM300-006666^^|20161124131828|||||||||12_neg^^99ROC
OBX|4|ST|75540-5^DPX^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM300-006666^^|20161124131828|||||||||12_neg^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: control (-) C

```
MSH|^~\&|COBAS6800/8800||LIS||20161125084514||OUL^R22|2fde78da-66ba-486a-953f-af099d89d16c|P|2.5|||
||ASCII
SPM||$005D7EL2||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131838|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|ST|B19^B19^99ROC||ValueNotSet|||BCO|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131838|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|3|ST|B19^B19^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM300-006666^^|20161124131838|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|ST|75540-5^DPX^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-006666^^|20161124131838|||||||||12_neg^^99ROC~11_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/2|Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-006666^^|20161124131838|||||||||12_neg^^99ROC~11_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: HAV reactive and B19 not detected

UCAPs

In this section

UCAP examples (172)

UCAP examples

UCAPs are qualitative assays with the possibility of up to 4 channels (targets). For each test order, the system returns up to 6 OBX segments in a OUL^R22 message: 1 per channel result, 1 for the overall result, and 1 for the result interpretation.

```
MSH|^~\&|COBAS6800/8800||LIS||20170720102044||OUL^R22|910ec01d-d20c-4b42-8b68-4ad847e2c63a|P|2.5|||
||ASCII
SPM||$00M932KG||UCSwabS^UC_Sample with swab^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||0004006^UCAP^99ROC|||||||A
OBX|1|ST|TGT2^TGT2^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175518|||||||||3_neg^^99ROC
TCD|0004006^UCAP^99ROC|^1^:^0
OBX|2|ST|0004006^UCAP^99ROC|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175518|||||||||3_neg^^99ROC
```

```
OBX|3|ST|0004006^UCAP^99ROC|1/2|UC_Positive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175518|||||||||3_neg^^99ROC
TCD|0004006^UCAP^99ROC|^1^:^0
```

Example for UCAP: U_Sample with swab, reactive (1 target activated)

```
MSH|^~\&|COBAS6800/8800||LIS||20170720102047||OUL^R22|4a986343-1e04-4dd9-baad-8989aadc638e|P|2.5||||
||ASCII
SPM||$00LG15DY||UCSwabS^UC_Sample with swab^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||0004006^UCAP^99ROC|||||||A
OBX|1|ST|TGT2^TGT2^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175519|||||||||3_neg^^99ROC
TCD|0004006^UCAP^99ROC|^1^:^0
OBX|2|ST|0004006^UCAP^99ROC|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175519|||||||||3_neg^^99ROC
OBX|3|ST|0004006^UCAP^99ROC|1/2|UC_Negative|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175519|||||||||3_neg^^99ROC
TCD|0004006^UCAP^99ROC|^1^:^0
```

Example for UCAP: U_Sample with swab, non-reactive (1 target activated)

```
MSH|^~\&|COBAS6800/8800||LIS||20170720102050||OUL^R22|7ab16db1-8705-410e-a3cd-1de8d4e53c67|P|2.5||||
||ASCII
SPM||$00M94DTL||UCSwabS^UC_Sample with swab^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||400|||uL^^UCUM
OBR|1|||0004006^UCAP^99ROC|||||||A
OBX|1||TGT2^TGT2^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM1000-005017^^|20170719175520|||||||||3_neg^^99ROC
TCD|0004006^UCAP^99ROC|^1^:^0
OBX|2||0004006^UCAP^99ROC|1/1||||Y40T~P01T~C02H2|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175520|||||||||3_neg^^99ROC
OBX|3|ST|0004006^UCAP^99ROC|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005017^^|20170719175520|||||||||3_neg^^99ROC
TCD|0004006^UCAP^99ROC|^1^:^0
```

Example for UCAP: U_Sample with swab, invalid (1 target activated)

```
MSH|^~\&|COBAS6800/8800||LIS||20170721132928||OUL^R22|d94a3f6b-cb76-40e6-87fa-21ac663b73ed|P|2.5||||
||ASCII
SPM||$00LG1CR6||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||0004007^UCAP^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175521|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175521|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|3|ST|TGT3^TGT3^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175521|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|4|ST|TGT4^TGT4^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175521|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|5|ST|0004007^UCAP^99ROC|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175521|||||||||4_neg^^99ROC
OBX|6|ST|0004007^UCAP^99ROC|1/2|UC_Positive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175521|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
```

Example for UCAP: U_Simple sample, 3 targets reactive, 1 target non-reactive (4 targets activated)

```
MSH|^~\&|COBAS6800/8800||LIS||20170720102212||OUL^R22|9805903a-622a-4c84-b85c-73e24c0a8b7f|P|2.5||||
||ASCII
SPM||$00LGlLKY||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||0004007^UCAP^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175523|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175523|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|3|ST|TGT3^TGT3^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175523|||||||||4_neg^^99ROC
OBX|4|ST|TGT4^TGT4^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175523|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|5|ST|0004007^UCAP^99ROC|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175523|||||||||4_neg^^99ROC
OBX|6|ST|0004007^UCAP^99ROC|1/2|UC_Negative|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM1000-005017^^|20170719175523|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
```

Example for UCAP: U_Simple sample, non-reactive (4 targets activated)

```
MSH|^~\&|COBAS6800/8800||LIS||20170720102215||OUL^R22|544b3941-2ade-4665-a8c4-3e1e73d8cff2|P|2.5||||
||ASCII
SPM||$00M945P5||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||0004007^UCAP^99ROC|||||||A
OBX|1||TGT1^TGT1^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM1000-005017^^|20170719175524|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|2||TGT2^TGT2^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM1000-005017^^|20170719175524|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|3||TGT3^TGT3^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM1000-005017^^|20170719175524|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|4||TGT4^TGT4^99ROC|||||Y40T|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000000001
2076380^IM1000-005017^^|20170719175524|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|5||0004007^UCAP^99ROC|1/1||||Y40T~P01T~C02H1~C02H2~C02H3~C02H4|||X|||||Validator||C6800/8800^Roc
he^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005017^^|20170719175524|||||||||4_neg^^99ROC
OBX|6|ST|0004007^UCAP^99ROC|1/2|Invalid|||""|||X|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM1000-005017^^|20170719175524|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
```

Example for UCAP: U_Simple sample, invalid (4 targets activated)

```
MSH|^~\&|COBAS6800/8800||LIS||20170720102200||OUL^R22|3d1a6318-8da1-4e67-b916-209b450591b9|P|2.5||||
||ASCII
SPM||C1614202840904292074 54||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||0004007^UCAP^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM1000-005017^^|20170719175518|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|2|ST|TGT2^TGT2^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM1000-005017^^|20170719175518|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
```

```
OBX|3|ST|TGT3^TGT3^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM1000-005017^^|20170719175518|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|4|ST|TGT4^TGT4^99ROC||ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID
_000000000012076380^IM1000-005017^^|20170719175518|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
OBX|5|ST|0004007^UCAP^99ROC|1/1|ValueNotSet|||VAL|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005017^^|20170719175518|||||||||4_neg^^99ROC
OBX|6|ST|0004007^UCAP^99ROC|1/2|Valid|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM1000-005017^^|20170719175518|||||||||4_neg^^99ROC
TCD|0004007^UCAP^99ROC|^1^:^0
```

Example for UCAP: control (-) C (4 targets activated)

Results with Ct values

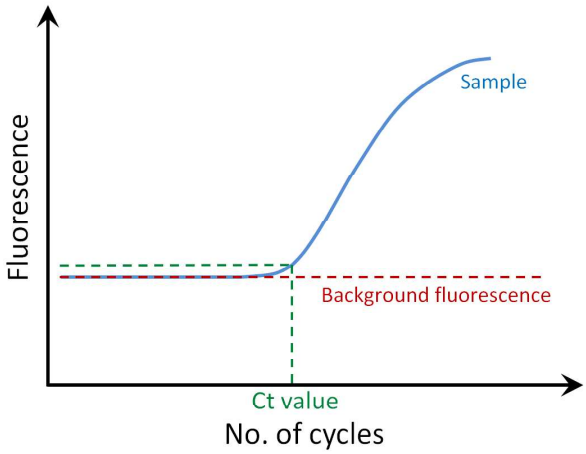
This section provides background information about Ct values and a selection of example result messages containing Ct values.

In this section

About Ct values (176)
Results with Ct values for qualitative assay (177)
Results with Ct values for quantitative assay (180)
Results with Ct values for qualitative/quantitative assay (181)
UCAP result messages with Ct values (184)

About Ct values

The Ct value (or threshold cycle) is the cycle number at which the fluorescence signal of the reaction is above the background fluorescence. At the Ct value, a detectable amount of the PCR product has been generated in the early exponential phase of the reaction. The Ct value therefore indicates the number of cycles necessary to detect a real signal in a sample.



Sending Ct values

By default, the option to send Ct values to the host/LIS is disabled. If you wish to enable the option, talk to your Roche Service representative.

If the option is enabled, the system sends Ct values together with the result to the host. Ct values are sent for target results, internal controls, RMCs, and user-defined controls.

The system sends Ct values in a supplementary OBX segment attached to each target result OBX segment.

Sending rules:

- Ct values are sent for each channel result. No Ct values are sent for overall results and result interpretations.
- Ct values are only sent for valid results. For invalid results, no Ct values are sent.
- If multiple runs are performed for a sample, only the Ct value of the last run is sent.

The following table describes all possible scenarios for sending Ct values depending on the type of result and assay.

Result (1)/ assay	Ct values in OBX-5 of supplementary OBX segment (Target_Ct_value^IC_Ct_value^QS_Ct_value)
Reactive/positive target result Qualitative assay	Target^IC
Positive target result Quantitative assay	Target^^QS
Reactive/positive target result Mixed assay (quantitative and qualitative, e.g. DPX)	Target^IC^QS
Non-reactive target result Qualitative assay	^IC
Negative target result Quantitative assay	^^QS
Non-reactive/negative target result Mixed assay (quantitative and qualitative, e.g. DPX)	^IC^QS
Invalid result	No supplementary OBX segment sent
Reactive/positive target result only	Target

Scenarios for Ct values

(1) Patient result or RMC result

Results with Ct values for qualitative assay

The OBX segments containing the Ct values are highlighted in blue.

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151353||OUL^R22|98f97f2e-8d3b-4473-acd5-317b5a266ab4|P|2.5||||
||ASCII
SPM||C1614202840896537759O1||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||34.39^37.29||||||F|||||TechnicalValidator|
|C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_
neg^^99ROC~37_pos^^99ROC
```

```
OBX|3|ST|HBV^HBV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|NA|HBV^HBV^99ROC^S_OTHER^Other Supplemental^IHELAW||35.46^37.29||||||F|||||TechnicalValidator|
|C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_
neg^^99ROC~37_pos^^99ROC
OBX|5|ST|HCV^HCV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|6|NA|HCV^HCV^99ROC^S_OTHER^Other Supplemental^IHELAW||34.2^37.29||||||F|||||TechnicalValidator||
C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_n
eg^^99ROC~37_pos^^99ROC
OBX|7|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|8|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Ct values sent for MPX M (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151353||OUL^R22|097a515c-2bf8-4bea-8548-bdacac24e2f0|P|2.5||||
||ASCII
SPM||C161420284089653775902||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153713|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||34.86^37.30||||||F|||||TechnicalValidator|
|C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153713|||||||||38_
neg^^99ROC~37_pos^^99ROC
OBX|3|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000005016^^|20170502153713|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|4|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153713|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Ct values sent for MPX O (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151353||OUL^R22|7d9036ec-83a8-48bf-9697-a3d3d22c408c|P|2.5||||
||ASCII
SPM||C161420284089653775903||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||34.4^35.64||||||F|||||TechnicalValidator||
C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_n
eg^^99ROC~37_pos^^99ROC
OBX|3|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|4|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Ct values sent for MPX 2 (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151353||OUL^R22|7522cb54-a96b-4a57-a483-8f2789733f15|P|2.5||||
||ASCII
SPM||C161420284090390977714||NULL|||||||Q|||||||||||||||
```

```
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||^37.38||||||F|||||TechnicalValidator||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^
99ROC
OBX|3|ST|HBV^HBV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|NA|HBV^HBV^99ROC^S_OTHER^Other Supplemental^IHELAW||^37.38||||||F|||||TechnicalValidator||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^
99ROC
OBX|5|ST|HCV^HCV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|6|NA|HCV^HCV^99ROC^S_OTHER^Other Supplemental^IHELAW||^37.38||||||F|||||TechnicalValidator||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^
99ROC
OBX|7|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
OBX|8|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Ct values sent for (-) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151353||OUL^R22|097d8972-3857-470f-8a21-de31c31556d2|P|2.5||||
||ASCI
SPM||$00M3P1Z7||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||^37.43||||||F|||||TechnicalValidator||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^
99ROC~37_pos^^99ROC
OBX|3|ST|HBV^HBV^99ROC||ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|4|NA|HBV^HBV^99ROC^S_OTHER^Other Supplemental^IHELAW||^37.43||||||F|||||TechnicalValidator||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^
99ROC~37_pos^^99ROC
OBX|5|ST|HCV^HCV^99ROC||ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
OBX|6|NA|HCV^HCV^99ROC^S_OTHER^Other Supplemental^IHELAW||^37.43||||||F|||||TechnicalValidator||C680
0/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^
99ROC~37_pos^^99ROC
OBX|7|ST|74856-6^MPX^LN|1/1|ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|8|ST|74856-6^MPX^LN|1/2|Non-Reactive|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153719|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Ct values sent for sample with ID $00M3P1Z7 non-reactive

```
OBX|2|NA|HEV^HEV^99ROC^S_OTHER^Other Supplemental^IHELAW||40.34||||||F|||||leec0002||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001152^^|20190906101838|||||||||1816_neg^^99ROC~1815_pos^^99ROC
```

OBX-5 segment for reactive target result and invalid IC

Results with Ct values for quantitative assay

The OBX segments containing the Ct values are highlighted in blue.

```
MSH|^~\&|COBAS6800/8800||LIS||20170713141823||OUL^R22|03436705-305d-454c-8663-625f12f7eb71|P|2.5||||||ASCII
SPM||HIV_test_2||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1|NM|HIV^HIV^99ROC||199|10*2.{Copies}/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||27.76^^34.42||||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
OBX|4|ST|70241-5^HIV^LN|1/2|Titer|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV-1: positive for HIV-1, Ct values sent for target and QS.

```
MSH|^~\&|COBAS6800/8800||LIS||20170713141823||OUL^R22|60533ba0-fe5a-417b-be27-0bc9613c791c|P|2.5||||||ASCII
SPM||HIV_test_4||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||70241-5^HIV^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
OBX|2|NA|HIV^HIV^99ROC^S_OTHER^Other Supplemental^IHELAW||^^34.42||||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
OBX|3|ST|70241-5^HIV^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
OBX|4|ST|70241-5^HIV^LN|1/2|Target Not Detected|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-006668^^|20170707112440|||||||||116_neg^^99ROC~115_pos^^99ROC
TCD|70241-5^HIV^LN|^1^:^0
```

Example for HIV-1: negative for HIV-1, Ct value sent only for QS

Results with Ct values for qualitative/quantitative assay

The OBX segments containing the Ct values are highlighted in blue.

```
MSH|^~\&|COBAS6800/8800||LIS||20170710142958||OUL^R22|2a670eb0-081c-4092-b6cf-19752ff215ab|P|2.5||||
||ASCII
SPM||DEWA4||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|NA|HAV^HAV^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roch
e^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_
pos^^99ROC
OBX|3|ST|B19^B19^99ROC||ValueNotSet|||BCO|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roch
e^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_
pos^^99ROC
OBX|5|ST|B19^B19^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|6|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roch
e^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_
pos^^99ROC
OBX|7|ST|75540-5^DPX^LN|1/1|ValueNotSet|||NR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|8|ST|75540-5^DPX^LN|1/2|Non-Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: non-reactive for DPX, for the negative target results, Ct values sent only for the IC and QS

```
MSH|^~\&|COBAS6800/8800||LIS||20170710142958||OUL^R22|75d31ff0-d1cc-4d15-8122-b0dceccfc248|P|2.5||||
||ASCII
SPM||DEWA3||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|NA|HAV^HAV^99ROC^S_OTHER^Other Supplemental^IHELAW||31.17^36.80^32.88||||||F|||||p||C6800/8800
^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC
~183_pos^^99ROC
OBX|3|ST|B19^B19^99ROC||ValueNotSet|||BCO|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roch
e^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_
pos^^99ROC
OBX|5|ST|B19^B19^99ROC||ValueNotSet|||BT|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

```
OBX|6|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|7|ST|75540-5^DPX^LN|1/1|ValueNotSet|||RR|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|8|ST|75540-5^DPX^LN|1/2|Reactive|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122203|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: reactive for DPX, for the positive target results, Ct values sent for the target, IC, and QS

```
MSH|^~\&|COBAS6800/8800||LIS||20170710142959||OUL^R22|becb7f99-ea4b-472c-b560-2fb8b378bf58|P|2.5||||||ASCII
SPM||C45532569839542343871||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|NM|B19^B19^99ROC||100|10*-2.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||27.94^^32.88||||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|3|ST|75540-5^DPX^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|4|ST|75540-5^DPX^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: control DPX H(+) C, Ct values sent only for QS and RMC

```
MSH|^~\&|COBAS6800/8800||LIS||20170710142959||OUL^R22|8c7804ca-31a6-4ec6-b11f-3866425fd989|P|2.5||||||ASCII
SPM||C45532569839542343872||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|NA|HAV^HAV^99ROC^S_OTHER^Other Supplemental^IHELAW||38.83^36.80^32.88||||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|3|NM|B19^B19^99ROC||100|10*-2.[iU]/mL^^UCUM|||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||40.03^36.80^32.88||||||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
OBX|6|ST|75540-5^DPX^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122201|||||||||184_neg^^99ROC~183_pos^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: control DPX D(+) C, Ct values sent for the target, IC, and QS

```
MSH|^~\&|COBAS6800/8800||LIS||20170710142959||OUL^R22|ed014fed-1402-4e82-82ea-36b4d4f15b27|P|2.5||||||ASCII
SPM||C391003376331120678 81||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||75540-5^DPX^LN|||||||A
```

```
OBX|1|ST|HAV^HAV^99ROC||ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM1000-001111^^|20170710122200||||||||184_neg^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|2|NA|HAV^HAV^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roch
e^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122200||||||||184_neg^^99ROC
OBX|3|ST|B19^B19^99ROC||ValueNotSet|||ND|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_0000000000
12076380^IM1000-001111^^|20170710122200||||||||184_neg^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
OBX|4|NA|B19^B19^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.80^32.88||||||F|||||p||C6800/8800^Roch
e^^~Unknown^Roche^^~ID_000000000012076380^IM1000-001111^^|20170710122200||||||||184_neg^^99ROC
OBX|5|ST|75540-5^DPX^LN|1/1|ValueNotSet|||VAL|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_00000
0000012076380^IM1000-001111^^|20170710122200||||||||184_neg^^99ROC
OBX|6|ST|75540-5^DPX^LN|1/2|Valid|||""|||F|||||p||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012
076380^IM1000-001111^^|20170710122200||||||||184_neg^^99ROC
TCD|75540-5^DPX^LN|^1^:^0
```

Example for DPX: control (-) buffer, Ct values sent only for the IC and QS

UCAP result messages with Ct values

The OBX segments containing the Ct values are highlighted in blue.

```
MSH|^~\&|COBAS6800/8800||LIS||20170817154750||OUL^R22|10a0b83b-2208-4dd3-9910-86509f8d732c|P|2.5||||
||ASCII
SPM||IC_U1_HxV_01||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005002^UCAP^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM300-001013^^|20170810144614|||||||||4_neg^^99ROC
TCD|0005002^UCAP^99ROC|^1^:^0
OBX|2|NA|TGT1^TGT1^99ROC^S_OTHER^Other Supplemental^IHELAW||36.45^37.05||||||F|||||Technical Validat
or||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810144614|||||||||4
_neg^^99ROC
OBX|3|ST|0005002^UCAP^99ROC|1/1|ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810144614|||||||||4_neg^^99ROCC6800
OBX|4|ST|0005002^UCAP^99ROC|1/2|UC_Positive|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810144614|||||||||4_neg^^99ROCC6800
TCD|0005002^UCAP^99ROC|^1^:^0
```

Example for UCAP: reactive for UCAP5002, Ct values sent for the target and the IC (UCAP with1 target and channel 5 activated with IC)

```
MSH|^~\&|COBAS6800/8800||LIS||20170817155005||OUL^R22|f98c4317-7135-4e9e-967a-c7c60770c41c|P|2.5||||
||ASCII
SPM||NoIC_U3_HxV_03||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005004^UCAP^99ROC|||||||A
OBX|1||one^one^99ROC|||||C02H1|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001013^^|20170811130257|||||||||8_neg^^99ROC
TCD|0005004^UCAP^99ROC|^1^:^0
OBX|2||two^two^99ROC|||||C02H2|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_00
0000000012076380^IM300-001013^^|20170811130257|||||||||8_neg^^99ROC
TCD|0005004^UCAP^99ROC|^1^:^0
OBX|3||three^three^99ROC|||||C02H3|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~I
D_000000000012076380^IM300-001013^^|20170811130257|||||||||8_neg^^99ROC
TCD|0005004^UCAP^99ROC|^1^:^0
OBX|4||four^four^99ROC|||||C02H4|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20170811130257|||||||||8_neg^^99ROC
TCD|0005004^UCAP^99ROC|^1^:^0
OBX|5||0005004^UCAP^99ROC|1/1||||C02H1~C02H2~C02H3~C02H4|||X|||||Technical Validator||C6800/8800^Roc
he^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170811130257|||||||||8_neg^^99ROC
OBX|6|ST|0005004^UCAP^99ROC|1/2|Invalid|||""|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-001013^^|20170811130257|||||||||8_neg^^99ROC
TCD|0005004^UCAP^99ROC|^1^:^0
```

Example for UCAP: invalid for UCAP5004, no Ct values sent (UCAP with 4 targets and channel 5 activated with IC)

```
MSH|^~\&|COBAS6800/8800||LIS||20170817154750||OUL^R22|87e4c7b4-90dd-4da8-80de-e1bc48750f13|P|2.5||||
||ASCII
SPM||IC_U1_Neg_03||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005002^UCAP^99ROC|||||||A
OBX|1|ST|TGT1^TGT1^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^R
oche^^~ID_000000000012076380^IM300-001013^^|20170810144613|||||||||4_neg^^99ROC
TCD|0005002^UCAP^99ROC|^1^:^0
```

```
OBX|2|NA|TGT1^TGT1^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.03||||||F|||||Technical Validator||C
6800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810144613|||||||||4_neg^
^99ROC
OBX|3|ST|0005002^UCAP^99ROC|1/1|ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810144613|||||||||4_neg^^99ROC
OBX|4|ST|0005002^UCAP^99ROC|1/2|UC_Negative|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810144613|||||||||4_neg^^99ROC
TCD|0005002^UCAP^99ROC|^1^:^0
```

Example for UCAP: non-reactive for UCAP5002, Ct values sent only for the IC (UCAP with 1 target and channel 5 activated with IC)

```
MSH|^~\&|COBAS6800/8800||LIS||20170817154356||OUL^R22|a4ba76fb-b33d-494e-8d69-2a3f379b8078|P|2.5||||
||ASCII
SPM||IC_U4_HxV_03||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005005^UCAP^99ROC|||||||A
OBX|1|ST|A^A^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|2|NA|A^A^99ROC^S_OTHER^Other Supplemental^IHELAW||^35.17||||||F|||||Technical Validator||C6800/8
800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^99ROC
OBX|3|ST|B^B^99ROC||ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|4|NA|B^B^99ROC^S_OTHER^Other Supplemental^IHELAW||36.63^35.17||||||F|||||Technical Validator||C6
800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^
99ROC
OBX|5|ST|C^C^99ROC||ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|6|NA|C^C^99ROC^S_OTHER^Other Supplemental^IHELAW||35.19^35.17||||||F|||||Technical Validator||C6
800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^
99ROC
OBX|7|ST|D^D^99ROC||ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-
001013^^|20170810132219|||||||||1_neg^^99ROCTCD|0005005^UCAP^99ROC|^1^:^0
OBX|8|NA|D^D^99ROC^S_OTHER^Other Supplemental^IHELAW||36.37^35.17||||||F|||||Technical Validator||C6
800/8800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^
99ROC
OBX|9|ST|0005005^UCAP^99ROC|1/1|ValueNotSet|||RR|||F|||||Technical Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^99ROC
OBX|10|ST|0005005^UCAP^99ROC|1/2|UC_Positive|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Un
known^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132219|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
```

Example for UCAP: 3 targets reactive, 1 target non-reactive for UCAP5005: Ct values sent for the targets and the IC (UCAP with 4 targets and channel 5 activated without IC)

```
MSH|^~\&|COBAS6800/8800||LIS||20170817154926||OUL^R22|4df6f5ad-c245-45eb-a46f-66db24c717b9|P|2.5||||
||ASCII
SPM||NoIC_U4_HxV_01||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005005^UCAP^99ROC|||||||A
OBX|1||A^A^99ROC|||||C02H1|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|2||B^B^99ROC|||||RR|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
```

```
OBX|3|NA|B^B^99ROC^S_OTHER^Other Supplemental^IHELAW||36.4||||||X|||||Technical Validator||C6800/880
0^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
OBX|4||C^C^99ROC|||||RR|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000000
012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|5|NA|C^C^99ROC^S_OTHER^Other Supplemental^IHELAW||35.56||||||X|||||Technical Validator||C6800/88
00^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
OBX|6||D^D^99ROC|||||C02H4|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_000000
000012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|7||0005005^UCAP^99ROC|1/1||||C02H1~C02H4|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
OBX|8|ST|0005005^UCAP^99ROC|1/2|Invalid|||""|||X|||||Technical Validator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM300-001013^^|20170811091025|||||||||6_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
```

Example for UCAP: 2 targets reactive, 2 targets Invalid and invalid IC for UCAP5005: Ct values sent only for reactive targets (UCAP with 4 targets and channel 5 activated without IC)

```
MSH|^~\&|COBAS6800/8800||LIS||20170817154400||OUL^R22|264aa70c-f69d-436c-b3e1-0db0028fa4ff|P|2.5||||
||ASCII
SPM||IC_U4_Neg_03||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005005^UCAP^99ROC|||||||A
OBX|1|ST|A^A^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|2|NA|A^A^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.27||||||F|||||Technical Validator||C6800/8
800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
OBX|3|ST|B^B^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|4|NA|B^B^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.27||||||F|||||Technical Validator||C6800/8
800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
OBX|5|ST|C^C^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|6|NA|C^C^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.27||||||F|||||Technical Validator||C6800/8
800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
OBX|7|ST|D^D^99ROC||ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unknown^Roche^^
~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
OBX|8|NA|D^D^99ROC^S_OTHER^Other Supplemental^IHELAW||^36.27||||||F|||||Technical Validator||C6800/8
800^Roche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
OBX|9|ST|0005005^UCAP^99ROC|1/1|ValueNotSet|||NR|||F|||||Technical Validator||C6800/8800^Roche^^~Unk
nown^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
OBX|10|ST|0005005^UCAP^99ROC|1/2|UC_Negative|||""|||F|||||Technical Validator||C6800/8800^Roche^^~Un
known^Roche^^~ID_000000000012076380^IM300-001013^^|20170810132217|||||||||1_neg^^99ROC
TCD|0005005^UCAP^99ROC|^1^:^0
```

Example for UCAP: 4 targets non-reactive for UCAP5005: Ct values sent only for the IC (UCAP with 4 targets and channel 5 activated without IC)

```
MSH|^~\&|COBAS6800/8800||LIS||20171003103356||OUL^R22|ee2f9555-aa67-4518-b36f-4ff400e02721|P|2.5||||
||ASCII
SPM||$00M53ZFY||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005042^UCAP^99ROC|||||||A
OBX|1|ST|TGT2^TGT2^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
```

```
TCD|0005042^UCAP^99ROC|^1^:^0
OBX|2|NA|TGT2^TGT2^99ROC^S_OTHER^Other Supplemental^IHELAW||37.59||||||F|||||Validator||C6800/8800^R
oche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
OBX|3|ST|TGT3^TGT3^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
OBX|4|NA|TGT3^TGT3^99ROC^S_OTHER^Other Supplemental^IHELAW||||||||F|||||Validator||C6800/8800^Roche^
^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
OBX|5|ST|TGT4^TGT4^99ROC||ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
OBX|6|NA|TGT4^TGT4^99ROC^S_OTHER^Other Supplemental^IHELAW||37.32||||||F|||||Validator||C6800/8800^R
oche^^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
OBX|7|ST|0005042^UCAP^99ROC|1/1|ValueNotSet|||RR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
OBX|8|ST|0005042^UCAP^99ROC|1/2|UC_Positive|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001013^^|20171003080011|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
```

Example for UCAP: 2 targets reactive, 1 target non-reactive for UCAP5042: Ct values sent only for the reactive targets (UCAP with 3 targets and Channel 5 inactivated)

```
MSH|^~\&|COBAS6800/8800||LIS||20171003103356||OUL^R22|343d18c5-5716-4636-86f6-9239377a639c|P|2.5||||
||ASCII
SPM||$00M5397L||UCSimpS^UC_Simple sample^99ROC|||||||P|||||||||||||||
SAC|||||||||||||||||||||500|||uL^^UCUM
OBR|1|||0005042^UCAP^99ROC|||||||A
OBX|1|ST|TGT2^TGT2^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
OBX|2|NA|TGT2^TGT2^99ROC^S_OTHER^Other Supplemental^IHELAW||||||||F|||||Validator||C6800/8800^Roche^
^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
OBX|3|ST|TGT3^TGT3^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
OBX|4|NA|TGT3^TGT3^99ROC^S_OTHER^Other Supplemental^IHELAW||||||||F|||||Validator||C6800/8800^Roche^
^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
OBX|5|ST|TGT4^TGT4^99ROC||ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche^^~ID_
000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
OBX|6|NA|TGT4^TGT4^99ROC^S_OTHER^Other Supplemental^IHELAW||||||||F|||||Validator||C6800/8800^Roche^
^~Unknown^Roche^^~ID_000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
OBX|7|ST|0005042^UCAP^99ROC|1/1|ValueNotSet|||NR|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
OBX|8|ST|0005042^UCAP^99ROC|1/2|UC_Negative|||""|||F|||||Validator||C6800/8800^Roche^^~Unknown^Roche
^^~ID_000000000012076380^IM300-001013^^|20171003080012|||||||||116_neg^^99ROC
TCD|0005042^UCAP^99ROC|^1^:^0
```

Example for UCAP: 3 targets non-reactive for UCAP5042: no Ct values sent (UCAP with 3 targets and channel 5 inactivated)

Results with reagent and consumables

This section provides example result messages containing reagent and consumable information.

- The INV segments containing the reagent and consumable information are highlighted in blue. Inventory information is sent for each channel result.
- Depending on the inventory, the inventory sequence might differ from the example result messages shown below.

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151439||OUL^R22|0fdc78d0-3df8-45be-8d38-a4c790897f30|P|2.5||||
||ASCII|||LAB-23^ROCHE
SPM||C161420284089653775901||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
INV|MPX M (+) C|OK|CO|||||||||20170630020000||||219647
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
```

```
TCD|74856-6^MPX^LN|^1^:^0
```

Example for reagent and consumable information sent for MPX M (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151438||OUL^R22|44cd1834-d5d7-4d5c-bc44-d25fbefcd578|P|2.5||||
||ASCII|||LAB-23^ROCHE
SPM||C161420284089653775903||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
INV|MPX 2 (+) C|OK|CO|||||||||20170630020000||||219647
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|2|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|3|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for reagent and consumable information sent for MPX 2 (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151438||OUL^R22|44cd1834-d5d7-4d5c-bc44-d25fbefcd578|P|2.5||||
||ASCII|||LAB-23^ROCHE
SPM||C161420284089653775903||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
INV|MPX 0 (+) C|OK|CO|||||||||20170630020000||||219647
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|2|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|3|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153705|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for reagent and consumable information sent for MPX O (+) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151438||OUL^R22|e1407740-3ae9-4c8e-8277-9eb3b12c908e|P|2.5||||
||ASCII|||LAB-23^ROCHE
SPM||C161420284090390977714||NULL|||||||Q|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
INV|(-) C|OK|CO|||||||||20170630020000||||W15523
OBR|1|||74856-6^MPX^LN|||||||A
```

```
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roc
he^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||VAL|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Valid|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roche^
^~ID_000000000012076380^IM1000-005016^^|20170502153704|||||||||38_neg^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for reagent and consumable information sent for (-) C

```
MSH|^~\&|COBAS6800/8800||LIS||20170509151438||OUL^R22|ec733b1c-d60e-4785-bf81-207a6f799e11|P|2.5||||
||ASCII|||LAB-23^ROCHE
SPM||$00M3RP3G||PLAS^plasma^HL70487|||||||P|||||||||||||||
SAC|||||||||||||||||||||850|||uL^^UCUM
OBR|1|||74856-6^MPX^LN|||||||A
OBX|1|ST|HIV^HIV^99ROC||ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005016^^|20170502153715|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|2|ST|HBV^HBV^99ROC||ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005016^^|20170502153715|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

```
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|3|ST|HCV^HCV^99ROC||ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^Roch
e^^~ID_000000000012076380^IM1000-005016^^|20170502153715|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
INV|MPX|OK|MR|||||||||20201231010000||||SL1234
INV|Tip rack|OK|SC|||||||||20181101010000||||065
INV|Processing plate|OK|SC|||||||||20190101010000||||500
INV|Amplification plate|OK|SC|||||||||20181201010000||||087
INV|Diluent|OK|DI|||||||||20180131010000||||X09594
INV|Lysis reagent|OK|LI|||||||||20170731020000||||X02735
INV|Wash reagent|OK|LI|||||||||20171130010000||||X10584
INV|MGP cassette|OK|SC|||||||||20170531020000||||W15571
OBX|4|ST|74856-6^MPX^LN|1/1|ValueNotSet|||NR|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown^
Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153715|||||||||38_neg^^99ROC~37_pos^^99ROC
OBX|5|ST|74856-6^MPX^LN|1/2|Non-Reactive|||""|||F|||||TechnicalValidator||C6800/8800^Roche^^~Unknown
^Roche^^~ID_000000000012076380^IM1000-005016^^|20170502153715|||||||||38_neg^^99ROC~37_pos^^99ROC
TCD|74856-6^MPX^LN|^1^:^0
```

Example for reagent and consumable information sent for Non-Reactive sample

Error flags

Error flags are dynamic and may change depending on the installed ASAP.

LIS flag	Description
C01	Calculation failure
C01H1	Calculation failure for target 1
C01H2	Calculation failure for target 2
C01H3	Calculation failure for target 3
C01H4	Calculation failure for target 4
C01H5	Calculation failure for target 5
C01T	Clot during dispense in neighboring well, risk of carryover
C02	Anomaly calculated
C02H1	Anomaly calculated for target 1
C02H2	Anomaly calculated for target 2
C02H3	Anomaly calculated for target 3
C02H4	Anomaly calculated for target 4
C02H5	Anomaly calculated for target 5
P01T	Transfer Module process execution error
P02T	Clot detected during aspiration
P03T	Clot detected during dispense
P04T	RMC arrival check failed
P05P	Processing Module process execution error
P06P	Volume Error during Reagent Dispense
P07P	Volume Error during supernatant removal
P08P	Processing temperature not reached
P09P	Processing temperature out of range
P10P	A timeout was reached
P11A	Amplification and detection process execution error
P12H0	Fluorescence signal saturation for IC/IQS
P13H1	Fluorescence signal saturation for target 1
P13H2	Fluorescence signal saturation for target 2
P14H3	Fluorescence signal saturation for target 3
P14H4	Fluorescence signal saturation for target 4
P14H5	Fluorescence signal saturation for target 5
P15	Viability Time of a test order has expired
Q01	RMC failed
Q02	Control Batch Failed
R01	Supply with critical validation error
R02	Supply with fatal validation error
U01T	Sample Pipettor blocked during tube access
U02T	Insufficient volume detected in sample tube, sample not transferred

Error flags

LIS flag	Description
U03	RFID calculation parameters error
U03P	Initial Reagent or MGP Cassette Volume Check failed
U04	User aborted Test Order
U05	The Interlock was triggered.
U06T	Insufficient volume aspirated, sample not transferred
U07	User invalidated test order
Y01T	Transfer module is not available.
Y02T	Hardware Error in Transfer Module
Y03P	Processing module is not available.
Y04P	Hardware Error in Processing Module
Y05A	Analytic unit is not available.
Y06A	Hardware Error in Analytic Unit
Y07B	Hardware Error in Consumable Cell
Y08F	Hardware Error in Infrastructure
Y10	Error during handling of a consumable, reagent cassette, or RD5 rack
Y11A	Channel shift detected in Analytic Unit
Y20M	Analytic System Software Error
Y21W	Instrument Gateway Software Error
Y22V	Pooling Instrument Manager Software Error
Y23K	Pooling Instrument Software Error
Y24X	ASAP error
Y40T	Error during liquid level detection during sample transfer process
Y41T	A tip could not be picked up for RMC transfer.
Y43	The on board temperature is out of range

Error flags

Communication log

The system stores all communications into a log file (`LisInterfaceTracer.log`) that is part of the standard problem report.

⚠ WARNING

Disclosure of confidential data in log file

Unauthorized users can view confidential data stored in the log file.

- Ensure that the log file is protected from any unauthorized access.
- Restrict physical access to the log file.
- Read the respective safety information on data security provided along with this product.

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Glossary

ASAP Array of files that contain the parameters and specifications of a specific test. It includes definitions for the robotics, calculation packages for the result calculation and libraries for the plausibility calculation.

DHCP Network protocol used for automatically distributing network parameters such as IP addresses to computers and interfaces.

GUID A 128-bit hexadecimal number created by the system to identify a message in the transmission record (e.g. `3F2504E0-4F89-11D3-9A0C-0305E82C3301`).

IG Server Integrated part of the **cobas**® 6800/8800 Systems used to perform PCR-based Nucleic Acid Testing (NAT) in diagnostic and blood screening facilities. It stores all data generated by the system, manages the sample workflow for pooling, connections to the LIS, and the integration of multiple instruments. The IG server also provides a GUI for the user to interact with the system, both via the instrument and via a Web Server. No standalone functionality is intended.The IG Server can control up to 5 **cobas**® 6800 Systems with up to 6 **cobas p** 680 instruments and including 1 printer.

LIS Host computer connected to the **cobas**® 6800/8800 Systems Instrument Gateway. It holds the patient Information and communicates with the **cobas**® 6800/8800 Systems using the HL7 protocol.

LOINC Preferred code set of HL7 for laboratory test names. LOINC validated by HL7 is effective globally. Development LOINC is system-specific and not validated by HL7 (e.g. created by Roche for **cobas**® 6800/8800 Systems).

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