

LABQUALITY

THE PATH TO PERFECT QUALITY

External Quality Assessment Product Catalogue 2022



LABQUALITY

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LABQUALITY

EXTERNAL QUALITY ASSESSMENT

Product Catalogue 2022

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Service information

Labquality – EQAS

Labquality is a Finnish independent external quality assessment provider. Labquality has 50 years of experience in helping clinical laboratories and POCT sites to develop and maintain their performance. Labquality's EQA schemes are internationally recognized high quality programs. The EQA programs have a clinical scope with an educational touch. Part of the EQA production is outsourced to expert laboratories and national partners.

Integrated EQA service (EQA³)

Labquality is the first EQA provider, who has integrated pre-analytical, analytical and post-analytical phases to its EQA programs. Advanced and traditional EQA schemes have been designed to fully support the total quality management system of the participating laboratories and fulfill ISO 15189 requirements concerning the extra-analytical phases. In addition to the samples, the integrated schemes include pre- and/or post-analytical questionnaires concerning the scope of the scheme.

Quality management

Labquality's management system is certified according to ISO 9001 (DQS) and main EQA schemes are accredited according to ISO 17043 (PT02/FINAS). The scope of accreditation is available on FINAS' website: www.finas.fi, and accreditation status of the EQA schemes is available on our website: www.labquality.fi. The list of accredited schemes will be provided upon request.

EQA service availability

Labquality has customers in over 50 countries in Europe, Asia, America and North Africa. Service is localized by 40 national partners. All digital schemes including pre-analytical schemes and diagnostic schemes for anatomic pathology are available globally. With only a few exceptions all schemes are available via national partners globally. For direct customers

the program selection is limited to the schemes with stable and non-hazardous sample materials.

Enrolment and prices

Labquality has annual programs and pricing. Participants shall place their orders for the next year before the end of November to ensure the participation to all needed EQA rounds. Enrolment is possible during the calendar year, but only part of the EQA rounds may be available. To place an order, please contact our national partner in your country or Labquality's customer service at info@labquality.fi.

Distributions

Labquality's specimen logistics system is accepted and continuously audited as part of accreditation according to ISO 17043 (PT02/FINAS) standard. Specimens are shipped according to the annual schedule. Labquality retains the right to make changes in the schedule.

LabScala EQA portal

Partners and participants are able to handle the whole EQA process from orders to reports via a modern web based software, LabScala. The EQA process is designed to go along with the laboratory process from pre-analytics to post-analytics. Easy availability and user-friendly interface guarantees an advanced experience.

Certificate

Certificate of participation will be provided upon request at the end of the calendar year. Certificate refers to EQA reports to evaluate the performance of the participant.

Customer service

Please contact Labquality's national partner (listed on Labquality's web site: www.labquality.fi) or our customer service (English) at info@labquality.fi.

How to use the catalogue

Scheme code and name		Rounds (delivery months)											
1234 Scheme name		1	2	3	4	5	6	7	8	9	10	11	12
POCT	Specimens:	•				•				•		•	
	Examinations:	Notes:											
Additional info													
EQA ³ = Integrated EQA service		NEW = New product		POCT = Suitable for Point-of-Care testing sites		VIRTUAL = Virtual microscopy							

Results processed: The number shows how many results from different analyzers or tests within the same laboratory are allowed depending on scheme, when the sample volume is sufficient. Schemes marked with * allow multiple results reporting only, if they are analyzed with different methods.

Updates for 2022

New schemes and products

2281 Interleukin-6 (p.12)
5851 *Francisella tularensis*, antibodies (p.21)
5651 CMV and EBV, nucleic acid detection, quantitative (p.26)
2753 Gastric biomarkers (p.11)
2526 Ketones (beta-hydroxybutyrate), POCT (p.8)
5562 Multiple Respiratory Virus nucleic acid detection (p.28)
7807 Preanalytics, Pneumatic Sample Transport (p.33)

Discontinued schemes

4238 Leucocyte differential count, 5-part, automated: Abacus

Changes in distribution schedule

4480 Column agglutination methods: grading of reactions and patient cases
5635 Dengue virus, antibodies and antigen detection
5472 Faecal parasites multiplex, nucleic acid detection
5679 Hepatitis B virus, nucleic acid detection (DNA)
5678 Hepatitis C virus, nucleic acid detection (RNA)
5680 HIV-1, nucleic acid detection (RNA)
5086 Human papillomavirus, nucleic acid detection
5470 Parasites in blood, Giemsa stain, virtual microscopy
5471 Parasites in blood, MGG stain, virtual microscopy
5473 *Trichomonas vaginalis*, detection
3170 Urine bacterial screening with automated analyzers

Changes in scope, specimens or parameters

5300 Respiratory infections multiplex, nucleic acid detection
New parameters: SARS-CoV-2 and *S. pneumoniae*.

Planned pilot schemes

Information about pilot contents and schedules will be announced later. Pilot schemes are EQA schemes under our product development.

Clinical chemistry

The clinical chemistry portfolio covers areas of allergology, basic chemistry, cardiac markers, diabetes analysis, endocrinology, special chemistry, specific proteins, tumour markers and urine analysis. For routine chemistry needs, schemes with both one and two level samples enabling assessment of more than 50 analytes are available. A wide selection of schemes specifically tailored for POCT devices are also available including those for drug abuse screening, glucose meters and troponin detection.

Clinical chemistry » Allergology

	1	2	3	4	5	6	7	8	9	10	11	12
2675 Allergen component [UK NEQAS]			•		•	•		•		•		•
Specimens: 2 liquid human serum samples for allergen component tests Examinations: Allergen component test which covers recombinant allergens as well as the ISAC system Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.												
2681 Allergy in vitro diagnostics [SKML]		•			•			•		•		
Specimens: 3 liquid human serum samples for specific IgEs with 3 allergens, 2 mixes and total IgE in each and some allergen components, 0.5 mL each Examinations: Total IgE, specific IgEs, allergen mixes and allergen components Notes: Participation to all rounds required. Should be ordered until the beginning of November. All samples are distributed in February.												
2670 Allergy in vitro diagnostics [UK NEQAS]			•		•	•		•		•		•
Specimens: 2 liquid human serum samples for specific IgEs with 4 allergens in each specimen, 0.5 mL each and 1 serum specimen for total IgE, 0.5 mL Examinations: Total IgE and specific IgEs Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.												
2680 Eosinophil cationic protein			•		•	•		•		•		•
Specimens: 1 lyophilized human serum sample, 0.3 mL Examinations: ECP Notes: Results are processed in connection with total IgE results of scheme 2670.												
2685 Tryptase [UK NEQAS]		•		•	•		•		•		•	
Specimens: 2 liquid human serum samples Examinations: Tryptase Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.												

Clinical chemistry » Basic chemistry

	1	2	3	4	5	6	7	8	9	10	11	12
2100 Basic chemistry, POCT analyzers		•			•			•			•	
Specimens: 2 human serum samples, 1 mL each Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase (total and pancreatic), aspartate aminotransferase, calcium, chloride, HDL cholesterol, cholesterol, creatinekinase, creatinine, gamma glutamyltransferase, glucose, lactate dehydrogenase, magnesium, phosphorus, potassium, sodium, total protein, triglycerides, urea, uric acid Notes: For clinical laboratories and POCT sites. Only for dry chemistry analyzers. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.												
2730 Erythrocyte sedimentation rate			•		•				•		•	
Specimens: 1 artificial blood cell suspension, ~ 4 mL Examinations: ESR Notes: Not suitable for Algor iSed												

2731 Erythrocyte sedimentation rate: Alifax-analyzers; Greinertube	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 test tubes containing synthetic latex solution, 3 mL each			•		•					•		•	
Examinations: ESR													
2732 Erythrocyte sedimentation rate: Alifax-analyzers; Sarstedt tube	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 test tubes containing synthetic latex solution, 3 mL each			•		•					•		•	
Examinations: ESR													
2733 Erythrocyte sedimentation rate, iSED	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 whole blood sample, 4 mL			•		•					•		•	
Examinations: ESR													
2750 Faecal occult blood, qualitative	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 preparations that include human haemoglobin, 0.5 mL each		•				•				•		•	
Examinations: Qualitative detection of Hb in human faeces													
Notes: For clinical laboratories and POCT sites													
2749 Faecal occult blood, quantitative	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid (Mar, Sep) or lyophilized (Jun, Dec) sample preparations of human origin including human haemoglobin			•			•				•			•
Examinations: Quantitative determination of Hb in human faeces (iFOB/FIT)													
Notes: The liquid samples assess the analytical process only, the lyophilized samples assess both the preanalytical and analytical processes. For clinical laboratories and POCT sites.													
2114 Haemoglobin, 1-level, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 bovine hemolysate or human whole blood control samples, 1 mL each.			•		•					•		•	
Examinations: Haemoglobin													
Notes: Only for POCT devices. Not suitable for Diaspect.													
2113 Haemoglobin, 3-level samples, cell counters and analyzers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 human whole blood control samples, 1 mL each (low, medium and high concentration)										•			
Examinations: Haemoglobin linearity with three samples. Reference values will be provided in the summary report.													
Notes: For cell counters and analyzers													
2112 Haemoglobin, 3-level samples, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 bovine or human samples, 1 mL each (low, medium and high concentration)										•			
Examinations: Haemoglobin linearity with three samples													
Notes: Only for POCT devices. Not suitable for Diaspect.													

Clinical chemistry » Cardiac markers

1541 CRP, low concentration	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 human serum sample		•		•		•				•		•	
Examinations: CRP													
Notes: CRP, low concentration sample is included in product 2541 Myocardial markers and CRP													
2540 Myocardial markers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid samples, 0.5 mL each		•		•		•				•		•	
Examinations: CK MB mass, myoglobin, quantitative troponin I, quantitative troponin T. Not for CKMB activity!													
Notes: Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.													

	1	2	3	4	5	6	7	8	9	10	11	12
2541 Myocardial markers and CRP, low concentration		•		•		•			•		•	
Specimens: Specimens: 2 liquid samples, 0.5 mL each Examinations: CK-MB mass, myoglobin, quantitative troponin I, quantitative troponin T and CRP, low concentration. Not for CKMB activity! Notes: Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT.												

	1	2	3	4	5	6	7	8	9	10	11	12
2690 Natriuretic peptides 1, B-type, NT-ProBNP	•			•			•			•		
Specimens: 2 liquid samples, 3 mL each Examinations: NT-ProBNP Notes: Suits both clinical laboratories and POCT sites. Also suitable for Roche Cardiac Reader and cobas h232.												

	1	2	3	4	5	6	7	8	9	10	11	12
2691 Natriuretic peptides 2, B-type, BNP	•			•			•			•		
Specimens: 2 liquid samples, 3 mL each Examinations: BNP Notes: For clinical laboratories and POCT sites												

	1	2	3	4	5	6	7	8	9	10	11	12
2530 Troponin I and Troponin T, detection, POCT		•		•		•			•		•	
Specimens: 2 fresh human samples or 2 liquid samples, 0.5 mL each Examinations: Detection of troponin I and troponin T Notes: Qualitative, semi-quantitative and quantitative results are processed. This scheme is only for POCT, scheme 2540 is for analyzers. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.												

Clinical chemistry » Diabetes analysis

	1	2	3	4	5	6	7	8	9	10	11	12
2570, 2580, 2590 Glucose meters		•			•				•		•	
Device specific product codes: 2570 for all glucose meters except Contour, HemoCue and On Call Plus 2580 for HemoCue meters 2590 for Contour meters Specimens: 1 whole blood or plasma sample, 1 mL Examinations: Glucose Notes: For clinical laboratories and POCT sites. Observe device specific product codes. 5 results processed with one order.												

	1	2	3	4	5	6	7	8	9	10	11	12
1261 Haemoglobin A1c, liquid samples		•		•		•		•		•		•
Specimens: 2 liquid blood samples, 0.5 mL each Examinations: HbA1c Notes: Not suitable for Afinion instruments.												

	1	2	3	4	5	6	7	8	9	10	11	12
1263 Haemoglobin A1c, liquid samples, POCT				•		•				•		•
Specimens: 2 liquid blood samples, 0.5 mL each Examinations: HbA1c Notes: Only for POCT devices. Not suitable for Afinion instruments.												

	1	2	3	4	5	6	7	8	9	10	11	12
2526 Ketones (beta-hydroxybutyrate), POCT			•						•			
Specimens: 2 serum samples, 0.4 mL each Examinations: beta-hydroxybutyrate Notes: For POCT sites and clinical laboratories. 3 results processed with one order if sample volume is sufficient.												

Clinical chemistry » Endocrinology

	1	2	3	4	5	6	7	8	9	10	11	12
2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry		•		•	•	•		•		•	•	•
Specimens: 2 human serum samples with differing concentrations, 3 mL each. Liquid serum sample (one level) included in Apr and Oct rounds. Pre- and/or post-analytical cases in part of the rounds. Examinations: Ferritin, folate, hCG (total, intact), T3, free T3, T4, free T4, TSH, vitamin B12, active vitamin B-12, pre- and/or post-analytical indicators Notes: 2300S is a limited version of the scheme available for laboratories performing testing of 1-5 analytes. For additional set of samples, order scheme 1300. Product 2300S does not include reporting from multiple analyzers or methods.												

	1	2	3	4	5	6	7	8	9	10	11	12
1300 Hormones A, extra set of samples		•		•	•	•		•		•	•	•
Specimens: 2 human serum samples, 3 mL each Notes: Only in connection with scheme 2300												

	1	2	3	4	5	6	7	8	9	10	11	12
2301, 2301S Hormones B: Steroid and peptide hormones		•		•		•		•		•		•
Specimens: 2 human serum samples with differing concentrations, 3 mL each. Liquid serum sample (one level) included in Apr, Aug and Dec rounds. Pre- and/or postanalytical cases in part of the rounds. Examinations: Androstenedione, aldosterone, C-peptide, cortisol, DHEAS, estradiol, FSH, gastrin, growth hormone, IGF-1, insulin, LH, progesterone, 17-OH-progesterone, prolactin, SHBG, testosterone, free testosterone, TBG,												
Notes: Reference values for 1 analyte in liquid serum will be provided. 2301S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. For additional set of samples, order scheme 1301. Product 2301S does not include reporting from multiple analyzers or methods.												

EQA³

	1	2	3	4	5	6	7	8	9	10	11	12
1301 Hormones B, extra set of samples		•		•		•		•		•		•
Specimens: 2 human serum samples, 3 mL each Notes: Only in connection with scheme 2301												

	1	2	3	4	5	6	7	8	9	10	11	12
2250 Parathyroid hormone, intact			•							•		
Specimens: 2 lyophilized human serum samples, 3 mL each Examinations: PTH, intact												

Clinical chemistry » General long-term clinical chemistry, known concentration

	1	2	3	4	5	6	7	8	9	10	11	12
1031 DayTrol, human serum	•	•	•	•	•	•	•	•	•	•	•	•
Specimens: 1 lyophilized human serum sample, 5 mL Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase, aspartate aminotransferase, bilirubin, calcium, chloride, cholesterol, cholesterol HDL, creatine phosphokinase, creatinine, gamma-glutamyltransferase, glucose, iron, lactate, lactate dehydrogenase, lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium,												
Notes: This program combines internal and external quality assessment. Same sample is analyzed daily or weekly basis. Monthly averages and CV%’s are compared with other participants. Minimum order quantity of 10 bottles per year. Monthly reporting is included												

Clinical chemistry » General short-term clinical chemistry, unknown concentration

	1	2	3	4	5	6	7	8	9	10	11	12
1072, 1072S Serum A, lyophilized samples	•	•	•	•	•	•	•	•	•	•	•	•
Specimens: Lyophilized serum sample, 3 mL each, samples are selected to cover a wide concentration range Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, alpha-1-antitrypsin, alpha-1-glykoprotein, amylase, amylase (pancreatic), aspartate aminotransferase, bilirubin, calcium, calcium (ionized, actual), calcium (ionized, pH 7.4), chloride, cholesterol, cholesterol HDL, cholesterol LDL, cortisol, creatine phosphokinase, creatinine, ferritin, gamma-glutamyltransferase, glucose, haptoglobin, IgA, IgE, IgG, IgM,												
Notes: Samples for multiple rounds shipped simultaneously. Monthly processing of results included. 1072S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. Product 1072S does not include reporting from multiple analyzers or methods.												

	1	2	3	4	5	6	7	8	9	10	11	12
2050 Serum B and C (2-level)		•		•		•		•		•	•	
Specimens: 2 liquid human serum samples covering a wide concentration range, 3–5 mL each Examinations: Alanine aminotransferase, albumin, alfa-1-antitrypsine, alfa-1-glycoprotein, alkaline phosphatase, amylase, pancreas amylase, aspartate aminotransferase, bilirubin, ferritin, phosphate, glucose, glutamyltransferase, haptoglobin, IgA, IgE, IgG, IgM, potassium, calcium, ionized calcium, ionized calcium pH corrected (7.4), chloride, cholesterol,												
Notes: Reference values for common analytes are included												

Clinical chemistry » Special chemistry

POCT	2610 Acid-base status and electrolytes	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 3 buffered artificial samples, 2.5 mL each. Examinations: Chloride, creatinine, glucose, ionized calcium, ionized magnesium, lactate, pCO ₂ , pH, pO ₂ , potassium, sodium, urea, base excess, HCO ₃ .	1	•		•				•			•	
	Notes: Order one sample set for each analyzer. For clinical laboratories and POCT sites.												
	2510 Alcohol in whole blood: Ethanol + methanol + isopropanol	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: Ethanol: 2-level whole blood samples. Methanol and isopropanol: 1-level whole blood samples.	3		•							•		
	Examinations: Ethanol, methanol, isopropanol												
	2516 Alcohol in whole blood: Ethylene glycol	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1-level whole blood samples	3		•							•		
	Examinations: Ethylene glycol												
	2511 Alcohol in serum: Ethanol +methanol +isopropanol +acetone	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: Ethanol: 2-level serum samples. Methanol, isopropanol and acetone: 1-level serum samples.	3		•							•		
	Examinations: Ethanol, methanol, isopropanol, acetone												
	2517 Alcohol in serum: Ethylene glycol	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1-level serum samples	3		•							•		
	Examinations: Ethylene glycol												
	2105 Ammonium ion	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 serum based or buffered samples	1			•				•				•
	Examinations: Ammonium ion												
	2210 Angiotensin convertase (ACE)	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 liquid and 1 lyophilized human serum sample, 1 mL each	3				•							
	Examinations: ACE												
	2520 Bile acids	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 pooled human serum samples, 0.5 mL each	3		•								•	
	Examinations: Bile acids												
	2109 Bilirubin, conjugated	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 lyophilized or liquid samples	3			•						•		
	Examinations: Total bilirubin, conjugated bilirubin												
	2040 Bilirubin, neonatal	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 lyophilized or liquid samples	3	•		•		•		•		•		•
	Examinations: Bil, neo												
	8702 Chromogranin A (Noklus)	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 3 genuine human serum samples	1					Once a year						
	Examinations: P-Cystatin C												
	8805 Cystatin C [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 human plasma samples with reference target values, 0.75 mL each	1					2 times						
	Examinations: P-Cystatin C												
	Notes: Participation to all rounds required.												

2753 Gastric biomarkers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples, 3 mL each							•					•	
Examinations: Pepsinogen I, Pepsinogen II, Gastrin-17, Helicobacter pylori Ab													
2150 Haemoxymeters	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid (1.2 mL) samples			•							•			
Examinations: FO2Hb, FCOHb, FMETHb, ctHb, sO2													
8816 Homocysteine [DEKS]	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 human plasma or serum samples							5 times						
Examinations: P-Homocysteine													
8815 Methyl malonate [DEKS]	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 human serum samples							5 times						
Examinations: P-Methyl-malonate													
2651 Nasal swab cells	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images of MGG and methylene eosin stained samples													•
Examinations: Eosinophils, neutrophils													
2652 Sputum cells	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images of MGG and methylene eosin stained samples													•
Examinations: Eosinophils, neutrophils													
2640 Synovial fluid crystals	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2-3 slides prepared from patient samples or digital images.			•							•			
Examinations: Sodium urate monohydrate and calcium pyrophosphate dihydrate crystals													
2410 Therapeutic drugs	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid or lyophilized human serum samples, volume 5 mL each.			•		•				•			•	
Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline,													
paracetamol (acetaminophen), phenobarbital, phenytoin, phenytoin free, primidone, procainamide, quinidine, salicylate, theophylline, tobramycin, tricyclics, valproic acid, valproic acid free, vancomycin													
2480 Vitamin A, E and D metabolites	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 1 mL each. Pre- and/or post-analytical cases in part of the rounds.				•								•	
Examinations: Vitamin A, vitamin E, 25(OH)D, 1,25(OH)2D, pre- and/or post-analytical indicators													
2481 Vitamin A, E and D metabolites, extra set of samples		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 5 mL each				•								•	
Notes: Only in connection with scheme 2480.													
2525 5-hydroxyindoleacetic Acid (5-HIAA)	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 serum samples				•							•		
Examinations: 5-HIAA													

NEW

EQA³

Clinical chemistry » Specific proteins

	2020	C-reactive protein (CRP) for analyzers	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 liquid serum or plasma samples, 1 mL each			•		•		•		•		•		•
		Examinations: CRP		Notes: Scheme is designed only for clinical chemistry analyzers. Order scheme 2132 for POCT CRP meters. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.											
POCT	2132	C-reactive protein (CRP), POCT	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 human serum samples, 1 mL each			•		•		•		•		•		•
		Examinations: CRP		Notes: Only for quantitative POCT CRP meters. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.											
	2140	Decalotransferrin [EQUALIS]	1	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 human plasma samples, varying concentration of CDT		•		•		•			•		•		•
		Examinations: CDT		Notes: Participation to all rounds required.											
	2751	Faecal calprotectin	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 lyophilized faecal specimens, 0.5 mL each			•			•			•			•	
		Examinations: Calprotectin													
NEW	2281	Interleukin-6	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2-3 lyophilized samples			•			•			•			•	
		Examinations: IL-6													
EQA ³	2200	Lipids and lipoproteins	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 fresh human serum samples, 0.5-1 mL each. Pre- and/or post-analytical cases in part of the rounds.			•							•			
		Examinations: Cholesterol, HDL cholesterol, LDL cholesterol, lipoprotein apo A1,		lipoprotein apo A2, lipoprotein apo B, lipoprotein (a), triglycerides, pre- and/or post-analytical indicators											
		Examinations: Cholesterol, HDL cholesterol, LDL cholesterol, lipoprotein apo A1,		Notes: Separate round for Lp(a), see scheme 2202											
	2202	Lipoprotein a	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 1 liquid or lyophilized human serum preparation			•							•			
		Examinations: Lp(a)													
	2280	Procalcitonin	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 lyophilized samples					•						•		
		Examinations: Procalcitonin		Notes: Only for quantitative methods											
	2160	Proteins in cerebrospinal fluid	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 1 cerebrospinal fluid sample 1-3 mL and 1 human serum sample, 1 mL					•					•			
		Examinations: Cerebrospinal fluid: Albumin, IgG, total protein, IgG index. Serum: Albumin, IgG.													
EQA ³	2240	Proteins, electrophoresis	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 liquid or lyophilized human serum samples, 1 mL each. Pre- and/or post-analytical cases in part of the rounds.			•			•			•			•	
		Examinations: Electrophoresis, contains immunofixation, pre- and/or post-analytical indicators													
	2230	Proteins, immunochemical determinations	3	1	2	3	4	5	6	7	8	9	10	11	12
		Specimens: 2 liquid human serum samples, 1 mL each.		•			•		•			•			
		Examinations: Alpha-1-antitrypsin, alpha-2-macroglobulin, albumin, ceruloplasmin, complement C3, complement C4, haptoglobin, hemopexin,		IgA, IgG, IgLcKappa, IgLcLambda, IgLcKappa free, IgLcLambda free, IgM, orosomucoid, pre-albumin, RBP, transferrin, transferrin receptor.											

Clinical chemistry » Tumour markers

2703 Anti-Müllerian hormone	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 1 mL each		•			•				•			•	
Examinations: Anti-Müllerian hormone													

2226 Prostate specific antigen	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 1 mL each		•		•				•			•		
Examinations: PSA, complexed PSA, free PSA, free/total PSA ratio													

2700, 2700S Tumour markers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 2 mL each		•			•				•			•	
Examinations: AFP, CA 125, CA 153, CA 199, CEA, ferritin, hCG (total, intact, beta-subunit), PSA, PSA free, PSA free/total index, TG, TG antibodies, beta-2-microglobulin, NSE, HE4													
Notes: 2700S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. Product 2700S does not include reporting from multiple analyzers or methods													

2701 Tumour markers, extra set of samples		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human serum samples, 2 mL each			•			•			•			•	
Notes: Only in connection with scheme 2700													

Clinical chemistry » Urine analysis

3240 Albumin and creatinine in urine	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid human urine samples with spiked albumin and creatinine, 4 mL each				•							•		
Examinations: Albumin, creatinine, albumin-creatinine ratio													
Notes: Only for quantitative methods													

3300 Drug of abuse screening in urine	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 authentic samples, 5 mL each		•				•				•			
Examinations: alpha PVP, amphetamines, barbiturates, benzo-diazepines, buprenorphine, cannabinoids, carbamazepine, cocaine metabolites, codeine, dextropropoxyphene, EDDP, gammahydroxybutyrate (GHB), ketamine, LSD, MDMA+MDA (Ecstasy), MDPV, metamphetamines, metaqualone, methadone metabolites, morphine, opiates, oxycodone, paracetamol, phencyclidine, phentanyle, pregabalin, salicylate, tramadol, tricyclic antidepressants													
Notes: For clinical laboratories and POCT sites. Expert laboratory confirmatory results are provided. Results are reported as positive or negative.													

3270 Pregnancy test	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 fresh urine samples, 1 mL each			•		•					•		•	
Examinations: Qualitative hCG													
Notes: For clinical laboratories and POCT sites													

3170 Urine bacterial screening with automated analyzers	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 lyophilized bacterial specimen and lyophilized synthetic urine sample				•								•	
Examinations: Bacterial, erythrocytes and leukocytes counting													

3200 Urine, identification of cells and other particles (digital images)	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images		•			•				•			•	
Examinations: Identification of cells and other particles													

	1	2	3	4	5	6	7	8	9	10	11	12
3160 Urine quantitative chemistry			•		•				•			•
Specimens: 1 lyophilized or liquid urine, 8–10 mL Examinations: Albumin, amylase, calcium, chloride, cortisol-free, creatinine, glucose, inorganic phosphate, magnesium, osmolality, pH, potassium, protein, relative density, sodium, urea, uric acid												

	1	2	3	4	5	6	7	8	9	10	11	12
3100 Urine strip test A		•		•				•		•		
Specimens: 1 lyophilized urine sample with varying concentrations, 15 mL Examinations: Glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density Notes: For clinical laboratories and POCT sites. Water for dissolution available, see scheme 3101, should be ordered separately.												

	1	2	3	4	5	6	7	8	9	10	11	12
3101 Urine strip test A, 15 mL water for sample dissolution		•		•				•		•		
Specimens: 15 mL water for dissolution of samples of scheme 3100 Notes: Only in connection with scheme 3100												

	1	2	3	4	5	6	7	8	9	10	11	12
3130 Urine strip test B, particle count and estimation of density			•		•				•			•
Specimens: 1 lyophilized urine, 15 mL Examinations: Particle count: erythrocytes and leukocytes. Estimation of density: creatinine, relative density, osmolality. Strip tests: glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes). Notes: Also suitable for automatic analyzers (erythrocytes and leukocytes counting). The arbitrary concentrations of the obtained strip test results will only be collected in order to avoid different groupings of positive categories used by different strip tests and user laboratories. Water for dissolution of the lyophilized sample available, see scheme 3131, should be ordered separately.												

	1	2	3	4	5	6	7	8	9	10	11	12
3131 Urine strip test B, 15 mL water for sample dissolution			•		•				•			•
Specimens: 15 mL water for dissolution of lyophilized samples of scheme 3130 Notes: Only in connection with scheme 3130												

Clinical chemistry and haematology

Clinical chemistry and haematology » Percentiler and flagger programs

	1	2	3	4	5	6	7	8	9	10	11	12
3501 Flagger program (Noklus)	1										•	
Specimens: The percentage of patient results outside the reference limits Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC Notes: Each participant will receive log in information giving access to the laboratories results and allowing dynamic on-line monitoring of mid-to long-term stability of performance and flagging rate. Laboratories can choose to participate in The Percentiler program only.												
3500 Percentiler program (Noklus)	1										•	
Specimens: results from selected patient groups are used to calculate instrument-specific daily medians Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC Notes: Participating laboratories calculate, and report instrument-specific medians based on patient results. The total number of patient results is also reported. Ideally, patient medians are reported daily, but less frequent reporting is also possible. Results are exported to a central database by standardized e-mails.												

Haematology

The haematology selection consists of schemes for blood transfusion serology, cell count and morphology as well as coagulation tests. Specialties include the Erythrocyte sedimentation rate for Alifax as well as the White blood cell count and INR schemes for POCT. Units performing blood transfusions find EQA schemes for hepatitis B and C, HIV as well as other infectious diseases under the microbiology portfolio. **Schemes related to blood parasites can be found under the parasites chapter.**

Haematology » Blood transfusion serological tests

	1	2	3	4	5	6	7	8	9	10	11	12
4420 ABO and Rh grouping		•			•			•			•	
Specimens: 2 whole blood samples	Notes: There is possibility to insert results for full ABO RhD group, confirmation group without using the plasma and a group for a newborn.											
Examinations: ABO & Rh reaction strengths and interpretation												
	1	2	3	4	5	6	7	8	9	10	11	12
4460 Antibody screening and compatibility testing		•			•			•			•	
Specimens: 2 whole blood samples and 4 red blood cell suspensions	Examinations: Reaction strengths and interpretation											
	1	2	3	4	5	6	7	8	9	10	11	12
4440 Antiglobulin test, direct		•			•			•			•	
Specimens: 2 red blood cell suspensions	Examinations: Reaction strengths and interpretation											
	1	2	3	4	5	6	7	8	9	10	11	12
4480 Column agglutination methods: grading of reactions and patient cases										•		
Specimens: 3-5 cases and digital images (DiaMed and Grifols cards)	Notes: Post-analytical scheme.											
Examinations: Interpretation of the cases and reaction strengths of the digital images												

Haematology » Cell count and cell morphology

	1	2	3	4	5	6	7	8	9	10	11	12
4100 Basic blood count, 1-level sample	•	•	•	•	•	•	•	•	•	•	•	•
Specimens: 1 blood cell suspension	Examinations: Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV											
	1	2	3	4	5	6	7	8	9	10	11	12
4110 Basic blood count, 2-level samples	•	•	•	•	•	•	•	•	•	•	•	•
Specimens: 2 blood cell suspensions	Examinations: Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV											
	1	2	3	4	5	6	7	8	9	10	11	12
4180 Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy					•					•		
Specimens: 2-3 patient cases as virtual slide images	Examinations: Leucocyte differential count and evaluation of red blood cells											
	1	2	3	4	5	6	7	8	9	10	11	12
4200-4201 Leucocyte differential count, 3-part, automated			•			•			•			•
Analyzer specific product codes: 4200: ABX, Advia, Cell-Dyn, Coulter, Medonic, Mindray, Nihon Kohden Celltac MEK 4201: Sysmex	Specimens: 1 blood cell suspension, 2-4 mL											
	Examinations: Absolute numbers of leucocytes, lymphocytes, mononuclear cells and granulocytes											

	1	2	3	4	5	6	7	8	9	10	11	12
4230–4239 Leucocyte differential count, 5-part, automated			●			●			●			●
Analyzer specific product codes: 4234: ABX Pentra, Yumizen 4236: Mindray 4231: Cell-Dyn 4237: Nihon Kohden Celltac MEK 4232: Coulter 4230: Siemens Advia 4235: Coulter ACT5-diff 4233: Sysmex XE, XS, XT, XN 4239: Mythic												
Specimens: 1 blood cell suspension, 2–4 mL Examinations: Leucocytes, basophils, eosinophils, granulocytes, lymphocytes and monocytes												

	1	2	3	4	5	6	7	8	9	10	11	12
4150–4156 Reticulocyte count, automated			●			●			●			●
Analyzer specific product codes: 4154: ABX Pentra 4156: Mindray 4151: Cell-Dyn 4000, Sapphire 4150: Siemens Advia 4155: Cell-Dyn 3200, 3500, 3700, Ruby 4153: Sysmex 4152: Coulter Gens, LH750												
Specimens: 2 stabilized red blood cell suspensions, 2–4 mL each Examinations: Reticulocyte count												

	1	2	3	4	5	6	7	8	9	10	11	12
4140 Reticulocyte count, manual methods			●			●			●			●
Specimens: 1 stabilized red blood cell suspension, 2 mL Examinations: Reticulocyte count												

	1	2	3	4	5	6	7	8	9	10	11	12
4130 White blood cell count: HemoCue, POCT			●						●			
Specimens: 1 blood cell suspension, 2 mL Examinations: Leucocytes												
Notes: The scheme is for HemoCue WBC Systems												POCT

	1	2	3	4	5	6	7	8	9	10	11	12
4190 White blood cell differential count: HemoCue, POCT						●						●
Specimens: 1 blood cell suspension, 2 mL Examinations: Leucocytes, neutrophils, lymphocytes, monocytes, basophils, eosinophils												
Notes: The scheme is for HemoCue WBC Diff analyzers (5-part)												POCT

Haematology » Coagulation

	1	2	3	4	5	6	7	8	9	10	11	12
4330 Activated partial thromboplastin time, INR and fibrinogen		●			●			●			●	
Specimens: 2 lyophilized plasma samples, 0.5–1 mL each Examinations: Coagulation time in seconds, fibrinogen, INR												

	1	2	3	4	5	6	7	8	9	10	11	12
4387 Anticoagulants: LMW-Heparin/antiFXa		●			●			●			●	
Specimens: 2 lyophilized plasma samples, 0.5–1 mL each Examinations: LMW-heparin/antiFXa												

	1	2	3	4	5	6	7	8	9	10	11	12
4388 D-dimer		●			●			●			●	
Specimens: 2 liquid commercial plasma samples, 0.5 mL Examinations: D-Dimer												
Notes: For clinical laboratories and POCT sites												POCT

	1	2	3	4	5	6	7	8	9	10	11	12
4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT					●						●	
Specimens: Liquid or lyophilized sample Examinations: Prothrombin time in INR unit												
Notes: Only for CoaguChek, i-STAT and Siemens Xprecia meters												POCT

POCT	4337 INR, EuroLyzer, POCT	1	2	3	4	5	6	7	8	9	10	11	12
					●							●	
	Specimens: 1 lyophilized plasma sample												
	Examinations: Prothrombin time in INR unit												

Notes: Only for EuroLyzer INR meter

POCT	4340 INR, LabPad, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12	
						•							•		
	Specimens: 1 dried whole blood sample			Notes: Only for LabPad INR meters											
	Examinations: Prothrombin time in INR unit														

POCT	4338 INR, MicroINR, LumiraDX and CoagSense, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12		
							●						●			
			Specimens: Lyophilized whole blood sample or lyophilized plasma sample						Notes: Only for microINR, LumiraDX and CoagSense meters							
			Examinations: Prothrombin time in INR unit													

4300 Prothrombin time	3	1	2	3	4	5	6	7	8	9	10	11	12
			●			●			●			●	
		Specimens: 2 lyophilized plasma samples, 0.5–1 mL each		Examinations: Prothrombin time, PT%									

4386 Special coagulation	3	1	2	3	4	5	6	7	8	9	10	11	12
			•			•			•			•	
		Specimens: 2 lyophilized plasma samples, 0.5–1 mL each		Examinations: Thrombin time, Antithrombin, Factor VIII, Protein C, Protein S									

EQA schemes for blood banks

Blood transfusion serology

- 4420 ABO and Rh grouping
- 4460 Antibody screening and compatibility testing
- 4440 Antiglobulin test, direct
- 4480 Column agglutination methods: grading of reactions and patient cases

Bacterial serology

- 5880 Syphilis serology

Bacteriology

- 5100 Blood culture
- 5101 Blood culture, screening

Virology, serological tests

- 5650 Cytomegalovirus, antibodies
- 5092 Hepatitis A, antibodies
- 5093 Hepatitis B, s-antigen antibodies, quantitative
- 5094–5096 Hepatitis B and C, serology
- 5091 HIV, antibodies and antigen detection
- 5089 Human T-cell lymphotropic virus, antibodies
- 5660 Parvovirus B19, antibodies

Virology, molecular tests

- 5679 Hepatitis B virus, nucleic acid detection (DNA)
- 5678 Hepatitis C virus, nucleic acid detection (RNA)
- 5680 HIV-1, nucleic acid detection (RNA)

EQA services for POCT sites

Patient outcome is associated with obtaining a reliable test result regardless of where the testing is performed. To ensure high quality of care and patient safety, it is imperative that point-of-care testing (POCT) is subjected to the same quality requirements as conventional laboratory analyses.

Labquality offers a range of EQA schemes suitable for POCT sites. These services are intended for all testing units including home/community nursing, hospital wards, pediatric clinics, surgical units, occupational healthcare, outpatient clinics and medical centers.

Clinical chemistry

- 2610 Acid-base status and electrolytes
- 3240 Albumin and creatinine in urine
- 2100 Basic chemistry, POCT analyzers
- 2132 C-reactive protein (CRP), POCT
- 3300 Drug of abuse screening in urine
- 2750 Faecal occult blood, qualitative
- 2749 Faecal occult blood, quantitative
- 2570, 2580, 2590 Glucose meters
- 1263 Haemoglobin A1c, liquid samples, POCT
- 2114 Haemoglobin, 1-level, POCT
- 2112 Haemoglobin, 3-level samples, POCT
- 2526 Ketones (beta-hydroxybutyrate), POCT
- 2690 Natriuretic peptides 1, B-type, NT-ProBNP
- 2691 Natriuretic peptides 2, B-type, BNP
- 3270 Pregnancy test
- 2530 Troponin I and Troponin T, detection, POCT
- 3100 Urine strip test A

Haematology

- 4388 D-Dimer
- 4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT
- 4337 INR, EuroLyzer, POCT
- 4340 INR LAbPad, POCT
- 4338 INR, MicroINR, LumiraDX and CoagSense, POCT
- 5430 Malaria, antigen and nucleic acid detection
- 4130 White blood cell count: HemoCue, POCT
- 4190 White blood cell differential count: HemoCue, POCT

Microbiology

- 5640 EBV mononucleosis, POCT
- 5635 Dengue virus, antibodies and antigen detection
- 5860 *Helicobacter pylori*, antibodies
- 5596 *Helicobacter pylori*, antigen detection in faeces
- 5090 HIV, antibodies and antigen detection, POCT
- 5671 Influenza virus A+B, antigen detection
- 5597 Legionella, antigen detection in urine
- 5430 Malaria, antigen and nucleic acid detection
- 5980 *Mycoplasma pneumoniae*, antibodies
- 5560 Puumala virus, antibodies
- 5673 Respiratory adenovirus, antigen detection
- 5098 Rotavirus and adenovirus, antigen detection
- 5672 RS virus, antigen detection
- 5677 SARS CoV-2, antibodies
- 5681 SARS-CoV-2 antigen detection
- 5595 *Streptococcus pyogenes*, group A, antigen detection in pharyngeal sample
- 5599 *Streptococcus agalactiae* (GBS), nucleic acid detection
- 5598 *Streptococcus pneumoniae*, antigen detection in urine
- 5099 Tick-borne encephalitis virus, antibodies
- 5473 *Trichomonas vaginalis*, detection

Preanalytics

- 7801 Preanalytics, urine and blood sample collection
- 7804 Preanalytics, POCT in chemistry

Immunology

This program includes schemes for immunodiagnostic tests such as those for coeliac disease, rheumatoid factor and thyroid gland autoantibodies. All of the schemes involve analysis of liquid human serum or plasma samples. For allergy diagnostics, review the allergology program in the clinical chemistry portfolio.

EQA ³	5935 ANCA and GbmAb	3*	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL each Examinations: Anti-neutrophilic cytoplasmic Ab, Myeloperoxidase Ab, Proteinase-3 Ab and Glomerular basement membrane Ab. Pre- and/or post-analytical cases in part of the rounds. Notes: Quantitative results are also processed (Pr3Ab, MPOAb, GbmAb)			•						•				
EQA ³	5900 Antinuclear antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 3 liquid human serum or plasma samples, 0.6 mL each Examinations: ANA, ENAAb, RNPAb, SmAb, SSAAb, SSBAb, Scl70Ab, CENP-B, CENP-A, Jo1Ab, dsDNA, HistAb, RibP Ab, RNAPol III Ab. Pre- and/or post-analytical cases in part of the rounds. Notes: Extractable antinuclear antigens and double-stranded deoxyribonucleic acid are included				•							•		
	5938 Autoimmune diagnostics, IFA interpretation (digital images)	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 3–5 cases (digital images) Examinations: Interpretation (ANA, ANCA and EMA images)					•								
	5930 Autoimmune liver disease and gastric parietal cell antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL each Examinations: Liver kidney microsomal antibodies, Smooth muscle antibodies, Mitochondrial antibodies, Gastric parietal cell antibodies					•							•	
EQA ³	5940 Coeliac disease, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.7 mL each. Pre- and/or post-analytical cases in part of the rounds. Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concentration of the sample. Pre- and/or post-analytical cases in part of the rounds. Notes: Quantitative results are also processed (tTGAbA, tTGAbG, DGPAbA, DGPAbG). Scheme is not suitable for POCT.			•			•					•		
	5937 Phospholipid antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL each Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM), beta-2-glycoprotein antibodies (IgG and IgM). Notes: Quantitative results are also processed					•								
	5820 Rheumatoid factor and citrullic peptide antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.7 mL each Examinations: Qualitative and quantitative RF, CCPAb		•			•			•			•		
EQA ³	5920 Thyroid gland antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL each Examinations: Thyroglobulin antibodies and thyroid peroxidase antibodies. Pre- and/or post-analytical cases in part of the rounds. Notes: Quantitative results are also processed			•			•					•		
	5913 TSH receptor antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL each Examinations: Thyroid stimulating hormone receptor antibodies Notes: Quantitative results are also processed			•							•			

Microbiology

The microbiological EQA programs are suitable for clinical laboratories and POCT sites performing testing in the areas of bacterial serology, bacteriology, mycology, parasitology and virology. While the selection includes schemes for antigen detection, antibody detection, culture, microscopy, and PCR tests, solutions for versatile needs are available. Authentic single donor samples are included in multiple schemes.

Microbiology » Bacterial Serology

5840	Antistreptolysin	3*	1	2	3	4	5	6	7	8	9	10	11	12	
			Specimens: 2 liquid human serum or plasma samples, 0.4 mL each. Authentic, commutable, single donor samples.												
			Examinations: Qualitative and quantitative ASO												
5950	<i>Bordetella pertussis</i> , antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³
			Specimens: 2 liquid human serum samples, 0.3 mL each												
			Examinations: <i>B. pertussis</i> IgA, IgG & IgM antibodies, Pertussis toxin IgA, IgG & IgM, post-analytical clinical interpretation												
5960	<i>Borrelia burgdorferi</i> , antibodies, European origin	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³
			Specimens: 2 liquid human serum or plasma samples, 0.5 mL each. Authentic, commutable, single donor samples.												
			Examinations: <i>B. burgdorferi</i> IgG, IgM and total antibodies, post-analytical clinical interpretation												
5850	<i>Brucella</i> , antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	
			Specimens: 2 liquid human serum or plasma samples, 0.5 mL each.												
			Examinations: <i>Brucella</i> IgG, IgM and total antibodies												
5620	<i>Chlamydia pneumoniae</i> , antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³
			Specimens: 3 liquid serum or plasma samples, 0.4 mL each.												
			Examinations: <i>C. pneumoniae</i> IgA, IgG, IgM antibodies, post-analytical clinical interpretation												
5851	<i>Francisella tularensis</i> , antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	NEW
			Specimens: 3 liquid human serum or plasma samples, 0.5 mL each.												
			Examinations: <i>Francisella tularensis</i> IgG, IgM and total antibodies												
5860	<i>Helicobacter pylori</i> , antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³ POCT
			Specimens: 2 liquid human serum or plasma samples, 0.4 mL each												
			Examinations: <i>H. pylori</i> IgA, IgG and total antibodies, quantitative and qualitative tests, post-analytical clinical interpretation												
			Notes: For clinical laboratories and POCT sites												
5980	<i>Mycoplasma pneumoniae</i> , antibodies	3*	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³ POCT
			Specimens: 2 liquid human serum or plasma samples, 0.3 mL each. Authentic, commutable, single donor samples.												
			Examinations: <i>M. pneumoniae</i> IgG, IgM and total antibodies, post-analytical clinical interpretation												
			Notes: For clinical laboratories and POCT sites												
5880	Syphilis serology	3*	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³
			Specimens: 2 liquid human serum samples, 0.6 mL each. Authentic, commutable, single donor samples.												
			Examinations: Cardiolipin, <i>Treponema pallidum</i> antibodies, post-analytical clinical interpretation												

Microbiology » Bacteriology

5050 Bacteriological staining, direct (digital images)	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 cases, 3–9 digital images				•							•		
Examinations: Interpretation of digital images taken from direct bacteriological Gram staining of clinical samples													
5100 Blood culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples. Brief case histories also given. Fresh blood is needed for specimen preparation. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.			•		•						•		•
Examinations: Culture, identification, antimicrobial susceptibility													
Notes: Fresh blood is needed but not included in the shipment													
5101 Blood culture, screening	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples. Brief case histories also given. Fresh blood is needed for sample preparation.			•		•						•		•
Examinations: Culture, preliminary identification using Gram staining. The scheme is also suitable for stem cell banks screening only for possible growth.													
Notes: Fresh blood is needed but not included in the shipment													
5150 Cerebrospinal fluid, bacterial culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples. Brief case histories also given.		•			•					•			•
Examinations: Culture and identification. The scheme is also suitable for laboratories performing screening and reporting merely a preliminary identification.													
Notes: See also scheme 5303 Meningitis-encephalitis multiplex, nucleic acid detection													
5612 <i>Chlamydia trachomatis</i> and <i>Neisseria gonorrhoeae</i> nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 simulated swab/urine samples (à 2 mL)				•		•				•			•
Examinations: Detection of <i>C. trachomatis</i> and <i>N. gonorrhoeae</i> nucleic acid													
Notes: See also scheme 5302 Sexually transmitted diseases multiplex, nucleic acid detection													
5200 <i>Clostridium difficile</i> , culture and toxin detection	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of bacteria.		•			•				•			•	
Examinations: This scheme includes <i>C. difficile</i> culture, antigen detection (GDH), toxin detection and direct nucleic acid detection. Hypervirulent <i>C. difficile</i> strains also included.													
5202 <i>Clostridium difficile</i> , extra set of samples		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of bacteria		•			•				•			•	
Notes: Only in connection with scheme 5200													
5201 <i>Clostridium difficile</i> , nucleic acid detection	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of bacteria. Hypervirulent <i>C. difficile</i> strains also included.		•			•				•			•	
Notes: 5200 includes also this examination													
5191 Faecal bacterial pathogens multiplex, nucleic acid detection	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 samples. Either lyophilized mixtures of bacteria and/or simulated samples, 1 mL.				•		•					•		•
Examinations: Direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>E. coli</i> EHEC (stx1/stx2), <i>E. coli</i> EAEC, <i>E. coli</i> EIEC, <i>E. coli</i> EPEC, <i>E. coli</i> ETEC, <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> .													
Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.													

5190 Faecal culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of bacteria	Examinations: Culture and direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> .												

5080 General Bacteriology 1 (aerobes and anaerobes)	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 lyophilized mixtures of microbes: both pathogens and normal flora. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Brief case histories are also given. Pre- and/or post-analytical cases in part of the rounds.	Examinations: Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases Notes: 5080 includes 5081, General Bacteriology 2												

5081 General Bacteriology 2 (aerobes)	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized mixtures of microbes: both pathogens and normal flora. The specimens intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Brief case histories are also given. Pre- and/or post-analytical cases in part of the rounds.	Examinations: Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases Notes: 5080 General Bacteriology 1 includes 5081												

5041 Gram stain, blood culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 air-dried, unfixed microbe suspensions on slides. Brief case histories also given.	Examinations: Staining and microscopy												

5040 Gram stain, colonies	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 air-dried, unfixed microbe suspensions on a slide	Examinations: Staining and microscopy												

5596 <i>Helicobacter pylori</i> , antigen detection in faeces	3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 samples: lyophilized faecal Examinations: Antigen detection	Notes: For clinical laboratories and POCT sites												

5597 Legionella, antigen detection in urine	3*	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 simulated urine samples	Examinations: Legionella antigen detection												

5220 Mycobacterial culture and stain	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples and 2 fixed smears on slides	Examinations: Detection of <i>Mycobacterium tuberculosis</i> , <i>Mycobacterium tuberculosis</i> complex and atypical mycobacteria: culture, direct nucleic acid detection, acid-fast staining and microscopy.												

5221 Mycobacterial nucleic acid detection	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples Examinations: Direct nucleic acid detection	Notes: 5220 includes also this examination. For additional set of samples, order scheme 5222.												

5222 Mycobacteria, extra set of samples	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples	Notes: Only in connection with scheme 5220 or 5221												

5240	Mycobacterial stain	1			•			•			•			•
Specimens: 2 fixed smears on slides			Examinations: Acid-fast staining and microscopy											

5120	Neisseria gonorrhoeae (Gc), culture and susceptibility testing	1			•		•			•			•	
Specimens: 2 lyophilized mixtures of microbes. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.			Examinations: Culture, identification and antimicrobial susceptibility testing. Also suitable for laboratories performing preliminary screening.											

5180	Salmonella culture	1				•		•				•		•
Specimens: 2 lyophilized mixtures of bacteria			Notes: 5190 also includes 5180											
Examinations: Culture														

5599	Streptococcus agalactiae (GBS), nucleic acid detection	3*				•		•			•		•	
Specimens: 2 swab samples. Samples also include normal flora.			Notes: See also product 5594 for S. agalactiae (GBS) culture.											
Examinations: Direct nucleic acid detection														

5594	Streptococcus agalactiae (GBS), culture	1				•		•			•		•	
Specimens: 2 lyophilized samples. Samples include pathogens and/or normal flora.			Examinations: Culture											
			Notes: See also product 5599 for direct nucleic acid detection.											

5598	Streptococcus pneumoniae, antigen detection in urine	3*			•		•				•			•
Specimens: 3 simulated urine specimens			Examinations: S. pneumoniae antigen detection											

5595	Streptococcus pyogenes (Group A), antigen detection in pharyngeal sample	3*			•		•				•			•
Specimens: 3 simulated pharyngeal samples			Notes: For clinical laboratories and POCT sites. Three results if used different kits.											
Examinations: Antigen detection														

5593	Streptococcus pyogenes (Group A), nucleic acid detection in pharyngeal sample	3*			•		•				•			•
Specimens: 3 simulated pharyngeal samples			Examinations: Nucleic acid detection.											
			Notes: Three results if used different kits.											

5073	Surveillance for multidrug resistant bacteria, gramnegative rods	1		•				•			•		•	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora			Examinations: The scheme is intended for laboratories performing screening of multidrug resistant gramnegative rods (e.g. CPE, ESBL, MDR Acinetobacter and P. aeruginosa) by culture and/or direct nucleic acid detection method											

5071	Surveillance for multidrug resistant bacteria, MRSA	1		•				•			•		•	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora			Examinations: The scheme is intended for laboratories performing screening of MRSA (methicillin resistant Staphylococcus aureus) by culture and/or direct nucleic acid detection method											

5072	Surveillance for multidrug resistant bacteria, VRE	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora			Examinations: The scheme is intended for laboratories performing screening of VRE (vancomycin-resistant enterococci) by culture and/or direct nucleic acid detection method											
5140	Throat streptococcal culture	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 lyophilized mixtures of bacteria			Examinations: Culture and identification of group A, C and G streptococci											
5060	Urine culture, quantitative screening	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples and dilutor. Brief case histories also given. Pre- and/or post-analytical cases in part of the rounds.			Examinations: Culture and quantitation, pre-and/or post-analytical indicators Notes: Scheme 3170 available for urine bacterial screening with automated analyzers.											
5065	Urine culture, quantitative screening, identification and susceptibility	1	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples and dilutor. Brief case histories also given. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Pre- and/or post-analytical cases in part of the rounds.			Examinations: Culture, quantitation, identification and antimicrobial susceptibility testing, pre-and/or post-analytical indicators Notes: Scheme 3170 available for urine bacterial screening with automated analyzers.											

EQA³EQA³

Microbiology » Mycology

		1	2	3	4	5	6	7	8	9	10	11	12
5260	Fungal culture	1			•		•				•		•
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.		Examinations: Culture and identification. Antimicrobial susceptibility testing of yeast strains.											

Microbiology » Parasitology

		1	2	3	4	5	6	7	8	9	10	11	12
5472	Faecal parasites multiplex, nucleic acid detection	1		●				●			●		
Specimens: 3 lyophilized samples		Examinations: Nucleic acid detection of <i>Cryptosporidium</i> , <i>Dientamoeba fragilis</i> , <i>Entamoeba dispar</i> , <i>Entamoeba histolytica</i> , <i>Giardia lamblia</i> .											

5430 Malaria, antigen and nucleic acid detection		3*	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 whole blood samples		Notes: For clinical laboratories and POCT sites												
Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.														

POCT

POCT

5462 Malaria screening, Giemsa stain		3	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories also given.			Examinations: Preliminary screening of malaria plasmodia											

5463 Malaria screening, MGG stain		1	2	3	4	5	6	7	8	9	10	11	12
3			•			•			•			•	
Specimens: 2 methanol fixed or May-Grünwald-Giemsa stained smears. Brief case histories are also given.						Examinations: Preliminary screening of malaria plasmodia							

	5460	Parasites in blood, Giemsa stain	3	1	2	3	4	5	6	7	8	9	10	11	12
					•			•			•			•	
				Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories also given.				Examinations: Screening and identification of malaria plasmodia and other blood parasites							
VIRTUAL	5470	Parasites in blood, Giemsa stain, virtual microscopy	5	1	2	3	4	5	6	7	8	9	10	11	12
														•	
				Specimens: 2 virtual whole slide images of Giemsa stained smears prepared by using a scanner microscope. Brief case histories also given.				Examinations: Screening and identification of malaria plasmodia and other blood parasites							
	5461	Parasites in blood, MGG stain	3	1	2	3	4	5	6	7	8	9	10	11	12
					•			•			•			•	
				Specimens: 2 methanol fixed or May-Grünwald-Giemsa stained smears. Brief case histories are also given.				Examinations: Screening and identification of malaria plasmodia and other blood parasites							
VIRTUAL	5471	Parasites in blood, MGG stain, virtual microscopy	5	1	2	3	4	5	6	7	8	9	10	11	12
														•	
				Specimens: 2 virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.				Examinations: Screening and identification of malaria plasmodia and other blood parasites							
	5440	Parasites in faeces	1	1	2	3	4	5	6	7	8	9	10	11	12
					•			•			•			•	
				Specimens: 3 stool samples in formalin. Brief case histories also given.				Examinations: Screening and identification of intestinal parasites (ova and parasites)							
VIRTUAL	5450	Parasites in faeces, virtual microscopy	5	1	2	3	4	5	6	7	8	9	10	11	12
							•						•		
				Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.				Examinations: Screening and identification of intestinal parasites (ova and parasites)							
EQA ³	5420	Toxoplasma, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
					•			•			•			•	
				Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given. Authentic commutable samples: Each sample batch originates from a single human donor.				Examinations: Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation							
POCT	5473	Trichomonas vaginalis, detection	3*	1	2	3	4	5	6	7	8	9	10	11	12
					•		•				•		•		
				Specimens: 3 simulated samples				Examinations: Detection of Trichomonas vaginalis antigen and nucleic acid (NAT)							

Microbiology » Virology

NEW	5651	CMV and EBV, nucleic acid detection, quantitative	3	1	2	3	4	5	6	7	8	9	10	11	12
						●						●			
				Specimens: 5 simulated samples, 1.5 mL each.				Notes: Quantitative result processing							
				Examinations: CMV and EBV NAT (quantitative).											

EQA ³	5650	Cytomegalovirus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
					●			●				●			●
				Specimens: 3 liquid human plasma samples, 0.7 mL each. Authentic commutable samples: each batch originates from a single human donor.				Examinations: Cytomegalovirus IgG, IgM and total antibodies, IgG avidity and post-analytical clinical interpretation							

5635	Dengue virus, antibodies and antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT	EQA ³
Specimens: 3 human serum or plasma samples, 0.5 mL each. Authentic, commutable samples from a single human donor or occasionally simulated samples.			Examinations: Dengue virus IgG and IgM antibodies, Dengue virus antigen (NS1) and post-analytical clinical interpretation													
5640	EBV mononucleosis, POCT	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT	
Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: MonAb Notes: For clinical laboratories and POCT sites													
5641	EBV mononucleosis, specific antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12		EQA ³
Specimens: 3 liquid human plasma samples, 1.4 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: EBNA AbG, EBV VCA AbG, EBV VCA AbM, IgG Avidity and post-analytical clinical interpretation													
5092	Hepatitis A, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12		EQA ³
Specimens: 3 liquid human plasma samples, 0.6 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: HAVAb, HAVAbM, HAVAbG and post-analytical clinical interpretation													
5094–5096	Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL	3	1	2	3	4	5	6	7	8	9	10	11	12		EQA ³
Specimens: 3 liquid human plasma samples, 0.6 / 1.2 or 2.0 mL. Authentic commutable samples: each batch originates from a single human donor. Examinations: HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and post-analytical clinical interpretation			Volume specific product codes: 5094: for 0.6 mL human plasma specimens 5095: for 1.2 mL human plasma specimens 5096: for 2.0 mL human plasma specimens													
5093	Hepatitis B, s-antigen antibodies, quantitative	3	1	2	3	4	5	6	7	8	9	10	11	12		
Specimens: 2 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: HBsAb (anti-HBs), quantitative													
5679	Hepatitis B virus, nucleic acid detection (DNA)	3*	1	2	3	4	5	6	7	8	9	10	11	12		
Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL each.			Examinations: HBV DNA, quantitative and/or qualitative nucleic acid detection													
5678	Hepatitis C virus, nucleic acid detection (RNA)	3*	1	2	3	4	5	6	7	8	9	10	11	12		
Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL each.			Examinations: HCV RNA, quantitative and/or qualitative nucleic acid detection													
5682	Hepatitis E, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12		EQA ³
Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: Hepatitis E virus IgG and IgM antibodies, post-analytical clinical interpretation.													
5555	Herpes simplex 1 and 2, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12		
Specimens: 3 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: HSV IgG (qualitative/quantitative), HSV IgM, HSV-1 IgG, HSV-2 IgG													

	5680	HIV-1, nucleic acid detection (RNA)	3*			•		•				•		•	
	Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL each.			Examinations: HIV-1 RNA, quantitative and/or qualitative nucleic acid detection											
EQA ³	5091	HIV, antibodies and antigen detection	3		•			•			•			•	
	Specimens: 3 liquid human plasma 0.7 mL each.			Examinations: HIVAgAb (combo), HIVAb, HIVAg, HIVAbCt: primary and confirmatory tests, post-analytical clinical interpretation. Positive specimens may include HIV-1 or HIV-2.											
POCT	5090	HIV, antibodies and antigen detection, POCT	3*		•			•			•			•	
	Specimens: 3 liquid human plasma 0.5 mL each. Examinations: HIVAb and HIVAgAb primary tests (POCT)			Notes: Scheme 5091 is for clinical laboratories											
	5086	Human papillomavirus, nucleic acid detection	3	•			•			•			•		
	Specimens: 2 simulated samples, 1 mL each Examinations: High-risk human papillomavirus NAT, hrHPVNAT			Notes: Suitable for nucleic acid methods used in cervical cancer screening											
EQA ³	5089	Human T-cell lymphotropic virus, antibodies	3		•			•			•			•	
	Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: HTLVAb: primary and confirmatory tests, post-analytical clinical interpretation. Positive samples may include HTLV-1 or HTLV-2.											
	5670	Influenza virus A+B and RS virus, nucleic acid detection	3		•									•	
	Specimens: 5 artificial samples. 1 mL each Examinations: InfANAT, InfBNAT, RSVNAT			Notes: See also scheme 5300 Respiratory infections multiplex, nucleic acid detection											
POCT	5671	Influenza virus A+B, antigen detection	3*		•									•	
	Specimens: 3 liquid and/or swab samples. Examinations: InfAAG, InfBAG			Notes: For clinical laboratories and POCT sites. The samples are not suitable for IFA or NAT methods.											
EQA ³	5668	Measles virus, antibodies	3	•			•			•			•		
	Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: Measles virus IgG and IgM antibodies and post-analytical clinical interpretation											
NEW	5562	Multiple respiratory virus, nucleic acid detection	3		•				•					•	
	Specimens: The round contains 3 swab samples. Examinations: Influenza A NAT, Influenza B NAT, RSV NAT and SARS-CoV-2 NAT.			Notes: Scheme is not suitable for TMA methods (e.g. Hologic Panther SARS-CoV-2 assay).											
EQA ³	5669	Mumps virus, antibodies	3	•			•			•			•		
	Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: Mumps virus IgG and IgM antibodies and post-analytical clinical interpretation											
	5675	Norovirus, nucleic acid detection	3			•			•			•			•
	Specimens: 3 simulated samples, 1 mL each			Examinations: Norovirus NAT, genogroups GI and GII											

5660	Parvovirus B19, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³
Specimens: 3 liquid human plasma or serum samples, 0.4 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: Parvovirus IgG, IgM, IgG avidity and post-analytical clinical interpretation												
5560	Puumala virus, antibodies	3*	1	2	3	4	5	6	7	8	9	10	11	12	POCT EQA ³
Specimens: 3 liquid human plasma or serum samples, 0.3 mL each. Brief case histories are also provided.			Examinations: Puumala virus IgG, IgM, POC tests and specific antibodies, IgG avidity and post-analytical clinical interpretation Notes: For clinical laboratories and POCT sites												
5673	Respiratory adenovirus, antigen detection	3*	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 simulated samples, 1 mL each.			Examinations: Adenovirus Ag												
5098	Rotavirus and adenovirus, antigen detection	3*	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 simulated samples, 1 mL each			Examinations: Rotavirus and adenovirus antigen detection												
5672	RS virus, antigen detection	3*	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 liquid and/or swab samples. Examinations: RSVAg			Notes: For clinical laboratories and POCT sites. The samples are not suitable for IFA or NAT methods.												
5667	Rubella virus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³
Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: Rubella virus IgG and IgM antibodies, IgG avidity and post-analytical clinical interpretation												
5099	Tick-borne encephalitis virus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	EQA ³ POCT
Specimens: 3 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: TBE IgG, IgM, total antibodies and post-analytical clinical interpretation Notes: For clinical laboratories and POCT sites												
5677	SARS-CoV-2, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 3 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.			Examinations: SARS-CoV-2 Ab, SARS-CoV-2 IgG, SARS-CoV-2 IgM, SARS-CoV-2 IgA Notes: For clinical laboratories and POCT sites												
5681	SARS-CoV-2, antigen detection	3	1	2	3	4	5	6	7	8	9	10	11	12	POCT
Specimens: 2 simulated samples Examinations: SARS-CoV-2 Ag			Notes: For clinical laboratories and POCT sites												
5676	SARS-CoV-2, nucleic acid detection	3	1	2	3	4	5	6	7	8	9	10	11	12	
Specimens: 3 simulated whole genome cDNA samples Examinations: SARS-CoV-2 NAT			Notes: Including variants. Scheme is not suitable for TMA methods (e.g. Hologic Panther SARS-CoV-2 assay).												

EQA ³	5665	Varicella-zoster virus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
					•			•			•			•	
				Specimens: 3 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.				Examinations: Varicella zoster IgG, IgM, total antibodies and post-analytical clinical interpretation							

EQA ³	5636	Zika virus, antibodies	3	1	2	3	4	5	6	7	8	9	10	11	12
								•						•	
				Specimens: 3 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.				Examinations: Zika virus IgG, Zika virus IgM, clinical interpretation							

EQA schemes including Antimicrobial Susceptibility Testing

Bacteriology and mycology

5100 Blood culture
 5260 Fungal culture
 5080 General Bacteriology 1
 5081 General Bacteriology 2
 5120 *Neisseria gonorrhoeae* (Gc), culture and susceptibility testing

5073 Surveillance culture for multidrug resistant bacteria, gramnegative rods
 5071 Surveillance culture for multidrug resistant bacteria, MRSA
 5072 Surveillance culture for multidrug resistant bacteria, VRE
 5065 Urine culture, quantitative screening, identification and susceptibility

EQA schemes suitable for direct nucleic acid testing methods

Bacteriology

5612 *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, nucleic acid detection
 5201 *Clostridium difficile*, nucleic acid detection
 5191 Faecal bacterial pathogens multiplex, nucleic acid detection
 5221 Mycobacterial nucleic acid detection
 5599 *Streptococcus agalactiae* (GBS), nucleic acid detection.
 5593 *Streptococcus pyogenes* (Group A), nucleic acid detection in pharyngeal sample
 5071 Surveillance culture for multidrug resistant bacteria, MRSA
 5072 Surveillance culture for multidrug resistant bacteria, VRE
 5073 Surveillance culture for multidrug resistant bacteria, gramnegative rods

Multiplex

5191 Faecal bacterial pathogens multiplex, nucleic acid detection
 5472 Faecal parasites multiplex, nucleic acid detection
 5304 Gastrointestinal viral multiplex, nucleic acid detection
 5303 Meningitis-encephalitis multiplex, nucleic acid detection
 5300 Respiratory infections multiplex, nucleic acid detection
 5302 Sexually transmitted diseases multiplex, nucleic acid detection

Parasitology

5472 Faecal parasites multiplex, nucleic acid detection
 5430 Malaria, antigen and nucleic acid detection
 5473 *Trichomonas vaginalis*, detection

Virology

5679 Hepatitis B virus, nucleic acid detection (DNA)
 5678 Hepatitis C virus, nucleic acid detection (RNA)
 5680 HIV-1, nucleic acid detection (RNA)
 5086 Human papillomavirus, nucleic acid detection
 5670 Influenza virus A+B and RS virus, nucleic acid detection
 5675 Norovirus, nucleic acid detection
 5676 SARS-CoV-2, nucleic acid detection
 5560 Multiple Respiratory Virus, nucleic acid detection

Multiplex

Multiplex EQA schemes are aimed to support laboratories to fulfill quality requirements of multiplex nucleic acid tests. All schemes include clinically relevant samples specially designed for multiplex nucleic acid testing. The multiplex schemes are annual programs and during the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

	1	2	3	4	5	6	7	8	9	10	11	12
5191 Faecal bacterial pathogens multiplex, nucleic acid detection ①				•		•				•		•
Specimens: 3 samples. Either lyophilized mixtures of bacteria and/or simulated samples, 1 mL. Examinations: Direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>E. coli</i> EHEC (stx1/stx2), <i>E. coli</i> EAEC, <i>E. coli</i> EIEC, <i>E. coli</i> EPEC, <i>E. coli</i> ETEC, <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												

	1	2	3	4	5	6	7	8	9	10	11	12
5472 Faecal parasites multiplex, nucleic acid detection ①		•			•			•			•	
Specimens: 3 lyophilized samples Examinations: Nucleic acid detection of <i>Cryptosporidium</i> , <i>Dientamoeba fragilis</i> , <i>Entamoeba dispar</i> , <i>Entamoeba histolytica</i> , <i>Giardia lamblia</i> .												

	1	2	3	4	5	6	7	8	9	10	11	12
5304 Gastrointestinal viral multiplex, nucleic acid detection ①					•						•	
Specimens: 3 simulated samples, 1 mL each. Examinations: Direct multiplex nucleic acid detection. Pathogens included are: <i>Adenovirus</i> , <i>Astrovirus</i> , <i>Norovirus</i> , <i>Rotavirus</i> , <i>Sapovirus</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												

	1	2	3	4	5	6	7	8	9	10	11	12
5303 Meningitis-encephalitis multiplex, nucleic acid detection ①		•			•				•		•	
Specimens: 3 simulated samples, 1 mL each. Examinations: Direct multiplex nucleic acid detection. Pathogens included are: <i>Escherichia coli</i> K1, <i>Haemophilus influenzae</i> , <i>Listeria monocytogenes</i> , <i>Neisseria meningitidis</i> , <i>Streptococcus agalactiae</i> , <i>Streptococcus pneumoniae</i> , <i>Cytomegalovirus</i> (CMV), <i>Enterovirus</i> , <i>Epstein-Barr virus</i> (EBV), <i>Herpes simplex virus</i> 1 (HSV1), <i>Herpes simplex virus</i> 2 (HSV2), <i>Human herpesvirus</i> 6 (HHV6), <i>Human parechovirus</i> (HPEV), <i>Varizella zoster virus</i> (VZV) and <i>Cryptococcus neoformans</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												

	1	2	3	4	5	6	7	8	9	10	11	12
5300 Respiratory infections multiplex, nucleic acid detection ①		•			•				•			•
Specimens: 4 simulated samples, 1 mL each Examinations: Examinations: Direct multiplex nucleic acid detection. Pathogens included are <i>adenovirus</i> , <i>B. paraptussis</i> , <i>B. pertussis</i> , <i>C. pneumoniae</i> , <i>coronavirus</i> (OC43, 229E, NL63, HKU1), <i>enterovirus</i> , <i>influenzavirus</i> A/B, <i>metapneumovirus</i> , <i>M. pneumoniae</i> , <i>parainfluenzavirus</i> 1-4, <i>rhinovirus</i> , <i>RSV</i> A/B, <i>SARS-CoV-2</i> and <i>S. pneumoniae</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												

	1	2	3	4	5	6	7	8	9	10	11	12
5302 Sexually transmitted diseases multiplex, nucleic acid detection ①				•		•			•			•
Specimens: 4 simulated swab/urine samples (à 2 mL) Examinations: Direct multiplex nucleic acid detection. Pathogens included are <i>C. trachomatis</i> , <i>M. genitalium</i> , <i>M. hominis</i> , <i>N. gonorrhoeae</i> , <i>T. vaginalis</i> , <i>U. parvum</i> and <i>U. urealyticum</i> . Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.												

Pathology

Seven high quality schemes are available for pathology laboratories. With changing topics in the rounds, both the routine and more advanced needs are covered. The challenges are realistic and include also less commonly encountered clinically relevant cases. In the cytology and histopathology schemes virtual microscopy is used. With this technology, viewing of several fields of vision and levels of focus are enabled on a computer screen simulating analysis with an optical microscope.

Pathology » Preanalytics

	1	2	3	4	5	6	7	8	9	10	11	12
7806 Preanalytics and process in anatomic pathology					●						●	
Specimens: 3-5 cases with preanalytical and process error(S) Examinations: Participants are asked to find preanalytical or laboratory process error(s) in the cases.												
Notes: The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online.												

Pathology » Diagnostics

	1	2	3	4	5	6	7	8	9	10	11	12
6701 Gynaecological cytology (liquid based), virtual microscopy					●							
Specimens: Virtual images of at least 5 Papanicolaou stained slides of liquid based cytology (LBC) samples (ThinPrep). Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided. Examinations: Observations and diagnoses Notes: Virtual microscopy program does not work with Internet Explorer.												
	1	2	3	4	5	6	7	8	9	10	11	12
6700 Gynaecological cytology (smear), virtual microscopy			●									
Specimens: Virtual images of at least 5 Papanicolaou stained slides of conventional pap smear samples. The samples are selected from routine cytological material. Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided Examinations: Observations and diagnoses Notes: Virtual microscopy program does not work with Internet Explorer.												
	1	2	3	4	5	6	7	8	9	10	11	12
6542 Histopathology, virtual microscopy			●							●		
Topics 2022: 1/2022 Gynaecological histopathology 2/2022 Liver histopathology Specimens: Virtual images of at least 5 slides of miscellaneous tissue.												
Notes: Brief case histories and instructions are provided. Examinations: Observations and diagnoses Notes: Topics may vary annually												
	1	2	3	4	5	6	7	8	9	10	11	12
6702 Non-gynaecological cytology, virtual microscopy										●		
Specimens: Virtual images of Papanicolaou stained slides of non-gynaecological cytosentrifuge (CCF) or smear preparations or May-Grünwald-Giemsa stained smears or imprint preparations. Images of at least 5 cases from representative loci. Brief case histories and instructions are provided. Examinations: Observations and diagnoses Notes: Virtual microscopy program does not work with Internet Explorer.												

Pathology » Technology

	1	2	3	4	5	6	7	8	9	10	11	12
6543 Histological staining techniques				●						●		
Topics 2022, 1,2022: Papa and Weigert Van Gieson/ Herovici 2,2022: Kongo and Jones Specimens: Unstained paraffin sections or smears												
Examinations: Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board. Notes: Stains vary annually												
	1	2	3	4	5	6	7	8	9	10	11	12
6600, 6600S Immunohistochemical staining methods			●						●		●	
Topics 2022: 1/2022 Lymphoma: Cyclin D1, CD79a, CD10, CD4 and CD8 2/2022 Breast cancer: PR, HER2, ER, Ki-67 and HER2 -ISH* *) also double stain accepted, but no FISH 3,2022 Abdominal tumour CK7, WT1, CK20, CDX2 and PSA Specimens: Unstained paraffin embedded tissue from different tissue blocks or from one multiblock												
Examinations: Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board. Notes: Changes in frequency, antibodies and sample type. Three rounds with distinct topics available annually. Multiblock samples are now included. Participants can select 3 or 5 antibodies of their choice in each round (6600S for 3 antibodies, 6600 for 5).												

Preanalytics

The preanalytical schemes provide laboratories and POCT sites with tools for extending quality assurance beyond the commonly assessed analytical phase. As a result of the improved analytical quality, most errors have been suggested to now occur in the preanalytical phase. Managing all phases of the total testing cycle is equally important to ensure patient safety.

8817 HIL-index [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 serum samples, 2 mL each	•				•					•		
Examinations: Selected components are asked to be analysed. One of the samples is haemolysed, icteric or lipemic.												
7806 Preanalytics and process in anatomic pathology	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3-5 cases with preanalytical and process error(S)					•						•	
Examinations: Participants are asked to find preanalytical or laboratory process error(s) in the cases.												
7800 Preanalytics, clinical chemistry	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 cases with preanalytical error(s)		•							•			
Examinations: Laboratories are asked to find preanalytical error(s) in the cases												
7802 Preanalytics, microbiology	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 cases with preanalytical error(s)				•						•		
Examinations: Participants are asked to find preanalytical error(s) in the cases												
7807 Preanalytics, Pneumatic Sample Transport	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: Two surrogate blood vials (i.e. measurement devices for recording 3-axis acceleration during pneumatic tube system transport (PTS)).			•									
Examinations: Vials are sent through the PTS as regular blood samples, no laboratory analysis is performed. Rejection probability of LDH, ASAT and K will be calculated using the cumulative vibration level, laboratory defined anayte-specific hemolysis cutoffs, and a hemolysis model.												
7804 Preanalytics, POCT in chemistry	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 cases with preanalytical error(s)										•		
Examinations: Participants are asked to find preanalytical error(s) in the cases												
7801 Preanalytics, urine and blood sample collection	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 cases with preanalytical error(s)			•									
Examinations: Participants are asked to find preanalytical error(s) in the cases												

NEW

POCT

POCT

Others

Others » Andrology

	1	2	3	4	5	6	7	8	9	10	11	12
6400 Semen analysis										●		
Specimens: 3–6 digital videos and/or digital images Examinations: Concentration, morphology and motility												
Notes: Scheme is carried out online												

Others » Clinical physiology

	1	2	3	4	5	6	7	8	9	10	11	12
7130 ECG, interpretation				●						●		
Specimens: 3 digital ECG registrations (images) Examinations: Technical quality and findings												
Notes: Scheme is designed for nurses and general practitioners as well as for personnel in POCT units. Participants are evaluated on their responses on technical quality, findings or both if given.												

Others » Genetics

	1	2	3	4	5	6	7	8	9	10	11	12
3865 DNA analysis [EQUALIS]			●							●		
Specimens: Whole blood or extracted DNA. Blank samples (water) are sometimes included.												
Examinations: DNA-Apolipoprotein E genotype, DNA-Factor 2 (F2) g.20210G>A, DNA-Factor 5 (F5) c.1691G>A, DNA-Hemochromatosis (HFE) c.187C>G; c.845G>A, DNA-Lactase gene (LCT) g.13910C>T, DNA-Methylene tetrahydrofolate reductase (MTHFR) c.677C>T; c.1298A>C												

Others » Laboratory instruments

	1	2	3	4	5	6	7	8	9	10	11	12
8814 ELISA reader photometry control [DEKS]												
Specimens: An ELISA-plate with built-in gray glass filters Examinations: Control for the absorbance scale in ELISA reader												
Notes: Absorbance traceable to NIST Control of the absorbance scale of ELISA readers												

External quality assessment for extra-analytical phases

PREANALYTICAL EQA | ANALYTICAL EQA | POSTANALYTICAL EQA

Labquality has two advanced external quality assessment programs for extra-analytical phases of clinical laboratory investigation process. Preanalytical EQA programs are independent schemes for the evaluation of preanalytical phase and Integrated EQA programs includes pre- and/or postanalytical evaluation together with traditional EQA samples.

Pre- and postanalytical EQA programs

Preanalytical EQA programs

8817 HIL-index [DEKS]

7806 Preanalytics and process in anatomic pathology

7800 Preanalytics, clinical chemistry

7802 Preanalytics, microbiology

7807 Preanalytics, Pneumatic sample transport

7804 Preanalytics, POCT in chemistry

7801 Preanalytics, urine and blood sample collection

Integrated EQA programs

Clinical chemistry

2570, 2580, 2590 Glucose meters

2114 Haemoglobin, 1-level, POCT

2300, 2300S Hormones A:

Basic analytes of hormone and immunochemistry

2301, 2301S Hormones B: Steroid and peptide hormones

2200 Lipids and lipoproteins

2240 Proteins, electrophoresis

2050 Serum B and C (2-level)

2480 Vitamin A, E and D metabolites

Clinical physiology

7130 ECG, interpretation

Haematology

4480 Column agglutination methods:
grading of reactions and patient cases

Immunology

5935 ANCA and GbmAb

5900 Antinuclear antibodies

5920 Thyroid gland antibodies

5940 Coeliac disease, antibodies

Microbiology

5950 Bordetella pertussis, antibodies

5960 Borrelia burgdorferi, antibodies, European origin

5620 Chlamydia pneumoniae, antibodies

5650 Cytomegalovirus, antibodies

5635 Dengue virus, antibodies and antigen detection

5641 EBV mononucleosis, specific antibodies

5080 General Bacteriology 1 (aerobes and anaerobes)

5081 General Bacteriology 2 (aerobes)

5860 Helicobacter pylori, antibodies

5092 Hepatitis A, antibodies

5094–5096 Hepatitis B and C, serology

5682 Hepatitis E, antibodies

5091 HIV, antibodies and antigen detection

5089 Human T-cell lymphotropic virus, antibodies

5668 Measles virus, antibodies

5669 Mumps virus, antibodies

5980 Mycoplasma pneumoniae, antibodies

5660 Parvovirus B19, antibodies

5560 Puumala virus, antibodies

5667 Rubella virus, antibodies

5880 Syphilis serology

5099 Tick-borne encephalitis virus, antibodies

5420 Toxoplasma, antibodies

5060 Urine culture, quantitative screening

5065 Urine culture, quantitative screening, identification
and susceptibility

5665 Varicella-zoster virus, antibodies

5636 Zika virus, antibodies

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