gb GENETIC Gilbert

Clinical implications

The gb GENETIC Gilbert diagnostic kit is used to detect changes in the number of TA repetitions in the promoter of the UGT1A1 gene. This gene encodes the enzyme UDP-glucuronosyltransferase, which is responsible for the conjugation phase of biotransformation of bilirubin. The unmutated gene variant contains 6 TA repeats in the promoter, the mutated variant most frequently 7 TA repeats. Detection of this mutation is useful before starting treatment with medications whose limited biotransformation can result in development of toxic effects. Genotyping enables timely dose reduction or selection of alternative therapy.

Principle of detection

The kit is intended for detection polymorphism TA (allele 7TA) in gene UGT1A1 in human genomic DNA. Detection is based on **polymerase chain reaction (PCR) with analysis of melting curves using fluorescently labelled probe**.

Available products

Cat. No.	Product	rxn
3216-025	gb GENETIC Gilbert	25
3216-050	gb GENETIC Gilbert	50

1 kit contains reagents to provide 25 or 50 PCR reactions (20 µl volume of each reaction).

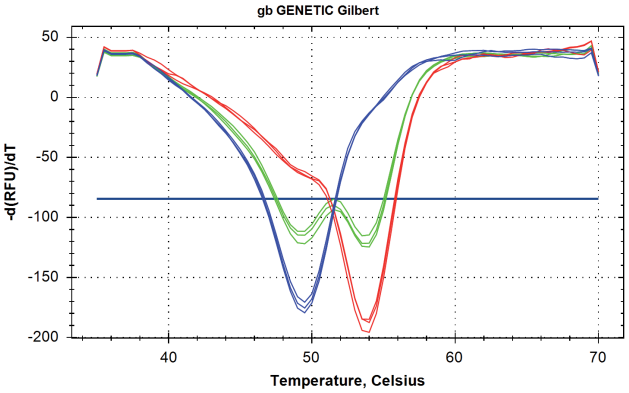
Parameters of the diagnostic kit

- ***in vitro* diagnostics**
- **CE IVD marked**
- **ready-to-use assay**
- **sample concentration 2.5-100 ng/µl**
- **positive and negative controls included**
- **FAM channel detection**

Content of the diagnostic kit

*	Component	Conc.	Purpose
🟢	Assay CQ UGT1A1	1.25×	Detection assay
⚪	Deionized Water		Negative Control
🟡	Standard WT UGT1A1 6TA	10^4 cop/µl	Positive Control
🔴	Standard MUT UGT1A1 7TA	10^4 cop/µl	Positive Control
🟣	Standard HET UGT1A1 6TA/7TA	10^4 cop/µl	Positive Control

** Lid colour*



Validated for cyclers

- **Rotor-Gene 3000/6000/Q (Corbett Research, Qiagen)**
- **CFX96/CFX96 Touch (Bio-Rad)**
- **ABI 7500/7500 Fast (Applied Biosystems)**
- **AriaMx/Stratagene Mx3000P/Mx3005P (Agilent Technologies)**
- **MIC (Bio Molecular Systems)**
- **Light Cycler 480/Cobas z480 (Roche Diagnostics)**

Fig. 1 – Detection of Gilbert standards by melting curve analysis on CFX96 device; blue line – wild type; red line – mutant; green line – heterozygote