gb HEMO FII (G20210A)

Clinical implications

Coagulation factor II (prothrombin) is a glycoprotein involved in the process of blood coagulation. Prothrombin is converted to thrombin, which cleaves fibrinogen to fibrin monomers (necessary for blood coagulation). G20210A mutation is located in the prothrombin gene promotor region and causes prothrombin over-activation which leads to increased risk of blood clot creation.

Principle of detection

The kit is intended for detection of mutation G20210A in coagulation factor II in human genomic DNA. Detection is based on **real-time polymerase chain reaction (qPCR) using fluorescently labelled probes (allelic discrimination)**.

Available products

Cat. No.	Product	rxn
3201-025	gb HEMO FII (G20210A)	25
3201-100	gb HEMO FII (G20210A)	100

1 kit contains reagents to provide 25 or 100 PCR reactions (20 µl volume of each reaction).

Parameters of the diagnostic kit

- ***in vitro*** **diagnostics**
- **CE IVD, IVDR certified**
- **ready-to-use assay**
- **sample concentration 10-100 ng/µl**
- **positive and negative controls included**
- **FAM and HEX channels detection**
- **identical amplification profile as gb HEMO, gb GENETIC, gb PHARM kits**

Content of the diagnostic kit

*	Component	Conc.	Purpose
🟢	Assay qPCR F2 (G20210A)	1.25×	Detection assay
⚪	Deionized Water		Negative Control
🟡	Standard WT F2 (G20210A)	10^4 cop/µl	Positive Control
🔴	Standard MUT F2 (G20210A)	10^4 cop/µl	Positive Control
🟣	Standard HET F2 (G20210A)	10^4 cop/µl	Positive Control

** Lid colour*



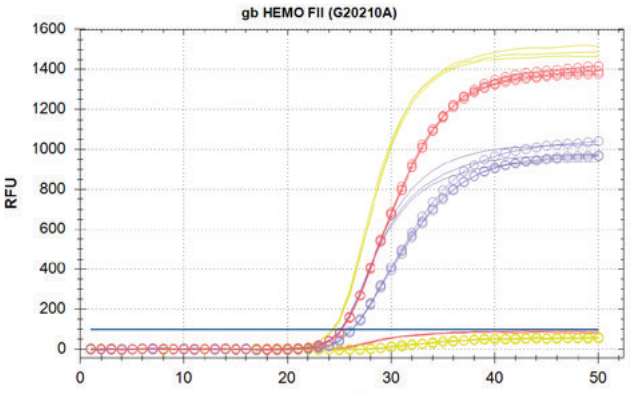


Fig. 1 – Detection of FII (G20210A) standards on CFX96 device; yellow line – wild type; red line – mutant; violet line – heterozygote; smooth line – FAM channel; dotted line – HEX channel

Validated for cyclers

- **Rotor-Gene 3000/6000/Q (Corbett Research, Qiagen)**
- **iCycler iQ5/CFX96/CFX96 Touch (Bio-Rad)**
- **ABI 7500/7500 Fast/7900HT (Applied Biosystems)**
- **AriaMx (Agilent Technologies)**
- **SmartCycler (Cepheid)**
- **MIC (Bio Molecular Systems)**
- **Stratagene Mx3000P/Mx3005P (Agilent Technologies)**
- **Light Cycler 480/Cobas z480 (Roche Diagnostics)**
- **QuantStudio 5 (Applied Biosystems)**