gb StarGreen PCR Mix

Description of the product

gb StarGreen PCR Mix consists of hot-start *Taq* DNA polymerase, reaction buffer, dNTP, $MgCl_2$, SYBR Green and additives that prevent PCR inhibition. *Taq* polymerase is chemically modified DNA polymerase from *Thermus aquaticus*. This polymerase is completely inactive at room temperature but it is rapidly activated during the initial denaturation step of PCR.

Purpose of the product

gb StarGreen PCR Mix is intended for real-time PCR analysis using SYBR Green instead of fluorescently labelled probe. gb StarGreen PCR Mix can also be used for the end-point PCR analysis. Beneficial feature is enhanced resistance to PCR inhibitors. The PCR Mix is intended for research use only (RUO).

gb PCR Master Mix by application	gb StarGreen PCR Mix
end-point PCR, common PCR amplification	✓
internal positive control included	
real-time PCR without probes	✓
real-time PCR with hydrolysis probes	
real-time PCR with low DNA samples	✓
PCR/real-time PCR with inhibited samples	✓
uracil-DNA glykosylase included	

Available products

Cat. No.	Product	rxn
3071	gb StarGreen PCR Mix	100

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

Parameters of the product

- PCR Mix is a **2× concentrated solution.**
- It contains **all the components** necessary for PCR performance.
- It is suitable for PCR detection using SYBR Green I.
- Due to its special composition there is **an increased resistance to PCR inhibitors.**
- **Polymerase** is a **hot-start** type with a short activation time (2 min / 95 °C), with 5′-3′ polymerase and exonuclease activity, 3′-5′ exonuclease activity is not present.
- The DNA polymerase exhibits high processivity.

Amplification protocol

Step	Temperature	Time	Cycle number
Initial denaturation/enzyme activation	95 °C	2–3 min	1
Amplification			
Denaturation	95 °C	10–20 s	30 - 50
Annealing	Tm - 5 °C	10–20 s	
Extension	72 °C	20 s	
Final extension	72 °C	5 min	1