

gb SG PCR Master Mix

Description of the product

gb SG PCR Master Mix consists of hot-start Taq DNA polymerase, reaction buffer, dNTP, MgCl₂, sybrgreen 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 SG PCR Master Mix is intended for real-time PCR analysis using the fluorescent dye in the FAM channel instead of fluorescently labelled probe. gb SG PCR Master Mix can also be used for the end-point PCR analysis. Beneficial feature is enhanced resistance to PCR inhibitors. It is not intended for use in diagnostics.

gb PCR Master Mix by application	gb SG
end-point PCR, common PCR amplification	
real-time PCR without probes	✓
real-time PCR with hydrolysis probes	
real-time PCR with LNA probes	
real-time PCR with hybridization probes	
real-time PCR with High Resolution Melting Analysis	
real-time PCR with low DNA samples	
PCR/real-time PCR with inhibited samples	✓

Available products

Cat. No.	Product	rxn
3005	gb SG PCR Master Mix	100

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

Parameters of the product

- gb SG PCR Master Mix is a **2× concentrated solution**.
- It contains **all the components** necessary for PCR performance.
- Due to its special composition there is **an increased resistance to PCR inhibitors**.
- It is suitable for PCR performance detection with the help of SYBR Green I (included in the Master Mix).
- **Polymerase** is a **hot-start** type with a short activation time (3 min / 95 °C), with 5'-3' polymerase and exonuclease activity, 3'-5' exonuclease activity is not present.
- Individual features of **Master Mixes** from our offer for your **comparison** can be found on our webpages.

Amplification protocol

Step	Temperature	Time	Cycle number
Initial denaturation/enzyme activation	95 °C	1–2 min	1
Denaturation	95 °C	0.5–1 min	
Annealing	T _m - 5 °C	0.5–1 min	30 - 50
Extension	72 °C	1 min/kb	
Final extension	72 °C	5–15 min	1
Melting step can be added			