

## Description of the product

gb GelReady PCR Master Mix consists of hot-start Taq DNA polymerase, reaction buffer, dNTP, MgCl<sub>2</sub>, dyes and additives **for direct loading of the PCR product into the gel**. 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 GelReady PCR Master Mix is intended for end-point PCR applications with product visualization by gel electrophoresis. Master Mix contains dyes and additives for direct loading of the PCR product into the gel without adding a loading buffer. It is not intended for use in diagnostics.

| gb PCR Master Mix dle aplikace                      | gb GelReady |
|-----------------------------------------------------|-------------|
| 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 |
|----------|----------------------------|-----|
| 3009     | gb GelReady PCR Master Mix | 100 |

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

## Parameters of the product

- Master Mix is a **2× concentrated**.
- One vial contains 1 ml of PCR Master Mix sufficient for 100 of PCR reactions of 20 µl.
- PCR Master Mix contains the Taq DNA polymerase, PCR reaction buffer, dNTPs, MgCl<sub>2</sub>, dyes and additives for direct loading of the PCR product into the gel.
- Taq DNA polymerase is a hot-start type with a short activation time, with the 5'-3' polymerase and exonuclease activity, lacking the 3'-5' exonuclease activity.
- PCR Mater Mix is suitable for end-point PCR analysis with a subsequent product visualization by gel electrophoresis.

## Amplification protocol

| Step                                   | Temperature           | Time      | Cycle number |
|----------------------------------------|-----------------------|-----------|--------------|
| Initial denaturation/enzyme activation | 95 °C                 | 1–2 min   | 1            |
| Denaturation                           | 95 °C                 | 0.5–1 min | 30 - 50      |
| Annealing                              | T <sub>m</sub> - 5 °C | 0.5–1 min |              |
| Extension                              | 72 °C                 | 1 min/kb  |              |
| Final extension                        | 72 °C                 | 5–15 min  | 1            |

