A&A BIOTECHNOLOGY
innovating life science

*Manual*

# PCR Mix Plus Green

High specificity ready-to-use mix for PCR. Contains PCR antiinhibitor, Taq polymerase and dyes facilitating easy tracking of electrophoresis. 2x concentrated.

| catalog # | size |
|---|---|
| 2005-100Z | 200 reactions in 25 µl |
| 2005-1000Z | 2000 reactions in 25 µl |

For research use only.

### Guarantee

A&A Biotechnology provides guarantee on this product.
The company does not guarantee correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components

# Advantages

- dyes to help track the progress of electrophoresis.

# Description

PCR Mix Plus Green is optimized ready to use high specificity PCR mixture containing *Taq* DNA polymerase, PCR buffer, $MgCl_2$, dNTPs and stabilizers at optimal concentration.

Mix also contains blue and yellow dyes and loading buffer. These additives enable direct loading of PCR products on agarose gel upon completing the PCR.

When running 2% agarose gel separation, the blue dye migrates as DNA fragments of 1 kb while the yellow dye represents the front of the separation.

# Contents

| | **2005-100Z** | **2005-1000Z** | **storage** |
|---|---|---|---|
| **PCR Mix Plus Green** | 2 x 1.25 ml | 20 x 1.25 ml | -20 °C |
| **Sterile water** | 2 x 1.5 ml | 20 x 1.5 ml | -20 °C |

## PCR Mix Plus Green composition

| **component** | **amount** |
|---|---|
| ***Taq* DNA polymerase** | 0.1 U/µl |
| **$MgCl_2$** | 4 mM |
| **dNTPs** | 0.5 mM of each dNTP |
| **Stabilizers:** blue and yellow dyes and loading buffer | |

# Notes

- Before use all solutions should be thawed thoroughly on ice, gently mixed by inverting the tube and briefly centrifuged.
- Up to 7x repeated freeze-thaw cycles do not influence on the activity of this product.

# Example PCR protocol

1. Thaw **the PCR Mix Plus Green** and **sterile water** on ice, gently mix by inverting the tubes and briefly centrifuge. Place the tubes on ice again.

2. Place PCR tubes on ice and add:

| | PCR reaction volume | |
|---|---|---|
| **component** | **25 µl** | **50 µl** |
| **PCR Mix Plus Green** | 12.5 µl | 25 µl |
| **Starter 1** | 0.1 - 1 µM | 0.1 - 1 µM |
| **Starter 2** | 0.1 - 1 µM | 0.1 - 1 µM |
| **DNA template** | 10 pg - 1 µg | 10 pg - 1 µg |
| **Sterile water** | up to 25 µl | up to 50 µl |

3. Gently mix the samples and briefly centrifuge. If necessary, overlay the samples with mineral oil. (it's recommended for thermocyclers without heated lid).

4. Place the tubes in the thermocycler and start the PCR programme.

   An example amplification profile for products up to 500 bp:

| **step** | **temperature** | **time** |
|---|---|---|
| **Initial denaturation** | 95 °C | 2 - 3 min |
| **25 - 45 cycles** | 95 °C<br>50 - 68 °C<br>72 °C | 15 - 30 s<br>30 - 60 s<br>15 - 60 s |

5. Load the post-PCR samples directly on a agarose gel for electrophoresis.

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