A&A BIOTECHNOLOGY
innovating life science

*Manual*

# PCR Mix Plus Red

High specificity ready-to-use mix for PCR, containing Taq DNA polymerase, stabilizers, PCR anti-inhibitors and red dye facilitating easy tracking of electrophoresis.

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

# Description

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

**PCR Mix Plus Red** also contains red dye and a loading buffer. These additives enable direct loading of PCR products on agarose gel upon completing the PCR. When running 1% agarose gel separation, the red dye migrates as DNA fragments of 1 kb.

# Contents

| | 2005-100P | | 2005-1000P | | |
|---|---|---|---|---|---|
| | **quantity** | **cat #** | **quantity** | **cat #** | **storage** |
| **2x PCR Mix Plus Red** | 2 x 1.25 ml | K-2005P-125A | 20 x 1.25 ml | K-2005P-125A | -20 °C |
| **ultrapure water** | 2 x 1.5 ml | K-WUP-15A | 20 x 1.5 ml | K-WUP-15A | -20 °C |

# Notes

- Before use, it is necessary to completely thaw and thoroughly mix the kit components by gently inverting the tube.
- Up to 7x repeated freeze-thaw cycles do not influence the activity of this product.

# Example PCR protocol

1. Thaw all components of the kit on ice, gently mix by inverting the tubes and briefly centrifuge. Place the tubes on ice again.

2. Place PCR tubes on ice or a cold block and add:

| component | volume 25 µl | final concentration |
|---|---|---|
| **2x PCR Mix Plus Red** | 12.5 µl | 1X |
| **primer 1 (10 µM)*** | 0.5 µl | 0.2 µM |
| **primer 2 (10 µM)*** | 0.5 µl | 0.2 µM |
| **DNA template** | 1-5 µl | < 250 ng/reakcja |
| **ultrapure water** | up to 25 µl | |

*For optimization, a primer titration should be performed from 0,2 µM do 1 µM final concentration.

3. Gently mix the samples and briefly centrifuge.

4. Place the tubes in the thermocycler and start the PCR programme.
An example amplification profile for products up to 500 bp:

| reaction 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 |

*Annealing temperature depends on primer sequence and the composition of the reaction mixture.

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

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