A&A BIOTECHNOLOGY
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Manual

PCR Mix Plus HGC

High specificity ready-to-use mix for PCR. Mix is designed for effective amplification of high GC pairs content DNA templates. Contains *Taq* DNA polymerase, PCR anti-inhibitors and dye facilitating easy tracking of electrophoresis. 2x concentrated.

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

- dye to help track the progress of electrophoresis.
- effective amplification of high GC pairs content

Description

PCR Mix Plus HGC is optimized ready to use high specificity PCR mixture containing *Taq* DNA polymerase, PCR buffer, $MgCl_2$, dNTPs and stabilizers at optimal concentration. Mix is designed for effective amplification of high GC pairs content DNA templates.

Mix also contains red dye and a loading buffer. These additives enable direct loading of PCR products on agarose gel upon completing the PCR.

Contents

	2005-100G	**2005-1000G**	**storage**
PCR Mix Plus HGC	2 x 1.25 ml	20 x 1.25 ml	-20 °C
ultrapure water	2 x 1.5 ml	20 x 1.5 ml	-20 °C

PCR Mix Plus HGC composition

component	**amount**
***Taq* DNA polymerase**	0.1 U/µl
$MgCl_2$	4 mM
dNTPs	0.5 mM of each dNTP
PCR specificity increasing reagents	
stabilizers: red dye 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 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 and add:

	PCR reaction volume	
component	**25 µl**	**50 µl**
PCR Mix Plus HGC	12.5 µl	25 µl
primer 1	0.1-1 µM	0.1-1 µM
primer 2	0.1-1 µM	0.1-1 µM
DNA template	10 pg-1 µg	10 pg-1 µg
ultrapure water	up to 25 µl	up to 50 µl

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:

step	**temperature**	**time**
initial denaturation	95 °C	2-3 min
25-45 cycles	95 °C 50-68 °C 72 °C	15-30 s 30-60 s 15-60 s

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

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