A&A BIOTECHNOLOGY
innovating life science

Manual

HF PCR Mix

Ready-to-use PCR mix for amplification of long PCR products at high fidelity. Mixture contains modified Pwo DNA polymerase with proofreading activity (3'-5' exonuclease), PCR enhancers and dyes facilitating easy tracking of electrophoresis. An effective amplification tool for long, difficult or GC-rich DNA templates.

catalog #	size
1035-100	100 reactions in 50 µl
1035-1000	1000 reactions in 50 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

HF PCR Mix is optimized ready to use PCR mixture for amplification of long PCR products at high fidelity to matrix DNA sequence. The mixture contains modified DNA polymerase, PCR buffer, $MgCl_2$, dNTPs , PCR enhancer and stabilizers at optimal concentration.

HF PCR 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

	1035-100	**1035-1000**	**storage**
HF PCR Mix	4 x 1.25 ml	40 x 1.25 ml	-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. **Attention.** HF PCR Mix should be added last to prevent degradation of primers.

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

	volume	final concentration
component	**50 µl**	
starter 1 (10 µM)	1 µl	0.2 µM
starter 2 (10 µM)	1 µl	0.2 µM
matryca DNA	3 µl	50 -200 ng
HF PCR Mix	45 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:

reaction step	temperature	time	number of cycles
initial denaturation	95 °C	2 min	1
denaturation	95 °C	15 s	25-35
annealing	40-70 °C*	30 s	
extension	72 °C	30-60 s / 1 kb**	
final extension	72 °C	5 min	1

*The annealing temperature depends on the starter sequence and the composition of the PCR mixture.
** We recommend a 60-second extension time for products with a length exceeding 3000 bp.

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

A&A BIOTECHNOLOGY

innovating life science

A&A Biotechnology, ul. Strzelca 40, 80-299 Gdańsk
tel. 883 323 761, 600 776 268
info@aabiot.com, www.aabiot.com

version 2024-1