LAMDA BIOTECH

PRODUCT INFORMATION

Catalog No.: D135HFL

Product Name: **HFL PCR Master Mix**

Size: 40x50µl Reactions

Description: The Ready-to-use **HFL PCR Master Mix** is for high fidelity and long fragment PCR, which contains modified high fidelity thermal stable DNA polymerases in a pre-optimized PCR buffer. Applying the extra high fidelity thermal stable DNA polymerases in the master mix ensures not only the highest fidelity for the PCR product, but also improves the amplification length of the resulting DNA fragments and the robust amplification efficiency. Amplified DNA contains blunt-ended DNA fragments. The Master Mix is useful when cloning large DNA fragments at high fidelity; such as, promoter and other important DNA regions.

The **HFL PCR Master Mix** is in the 2X format. For most of the PCR experiments with this master mix, only template, primers and H_2O will be needed.

Quality Control: Every lot is tested as to the integrity of the overall performance of the reaction system under the defined conditions for the enzyme.

Related Products	Catalog No.
• 100bp DNA Ladder	M107
• 1Kb DNA Ladder II	M108
• DNA SafeStain	C138
• Standard-Agarose	A113

1x Composition: 1x PCR buffer, **1.5mM $MgCl_2$**, 200µM dNTPs, 2.5units/25ul of thermal DNA polymerases, PCR enhancer and enzyme stabilizers.

Storage: 4°C for up to one month, or -20°C for long term storage.

Magnesium Chloride: In general, 1.5mM $MgCl_2$ is recommended; this may vary with different conditions and primer sets. Some primers/templates may require adjustments for $MgCl_2$ concentration, which can be achieved as shown below:

Final $MgCl_2$ conc.	Additional 25mM $MgCl_2$ per 50µl reaction
1.5mM	------
2.0mM	1.0µl
2.5mM	2.0µl

Directions for use: This **HFL PCR Master Mix** is in the 2X format. For a 50µl reaction: use 25µl of the **HFL PCR Master Mix**, add template, primers and H_2O to a final volume of 50µl. Cycling conditions vary for different templates and primers. To start with, try 30 cycles as follows: denature at 94°C for 30 seconds, anneal around 55°C for 30 seconds, and extend at 72°C for 30 seconds/kb. After the PCR cycles, add another extension at 72°C for 30 seconds /kb to complete the PCR. Then store the reaction at 4°C.

This product is for research use only.