

FastPfu Fly DNA Polymerase Enzyme

Catalogue No.: abx071020

FastPfu Fly DNA Polymerase is a fast, high fidelity and high processivity hot start DNA polymerase with an extension rate of up to 6 kb/min. Amplification of genomic DNA fragment up to 15 kb. Amplification of plasmid DNA fragment up to 20 kb.

Contents:

Component	250 U	500 U	3 kU
FastPfu Fly DNA Polymerase	1 × 250 U	1 × 500 U	6 × 500 U
2X FastPfu Fly Reaction Mix	3 × 1 ml	5 × 1.2 ml	30 × 1.2 ml
50 mM MgSO ₄	200 µl	400 µl	1 ml
PCR Stimulant	200 µl	400 µl	1 ml
6X DNA Loading Buffer	500 µl	1 ml	2 × 1 ml

Target: FastPfu Fly DNA Polymerase

Tested Applications: PCR

Conjugation: Unconjugated

Storage: Store at -20°C for up to 2 years. Avoid repeated freeze/thaw cycles.

Buffer: Contains glycerol. The exact formulation is proprietary.

Concentration: 2.5 U/µl

Note: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

Datasheet

Version: 7.0.0

Revision date: 10 Apr 2025



Directions for use: Reaction Components:

Component	Volume	Final Concentration
Template	Variable	as required
Forward Primer (10 µM)	1 µl	0.2 µM
Reverse Primer (10 µM)	1 µl	0.2 µM
2X FastPfu Fly Reaction Mix	25 µl	1X
FastPfu Fly DNA Polymerase	1 µl	2.5 U
Nuclease-Free ddH ₂ O	Variable	N/A
Total Volume	50 µl	N/A

Suggested Reaction Conditions:

Template	Quantity
Genomic DNA	10-100 ng Genomic DNA
Plasmid DNA	1-30 ng Plasmid DNA
cDNA	1-2 µl cDNA from RT reaction (50-500 ng RNA for RT reaction)

Thermal Cycling Conditions:

Number of Cycles	Temperature	Time
1 cycle	95 °C	2 min
	95 °C	20 seconds
30-35 cycles	T _M - 5 °C	20 seconds
	72 °C	6 kb/min
1 cycle	72 °C	5 min

Notes:

- The PCR Stimulant can be used to optimize the amplification of complex templates or high GC/AT templates. The recommended working concentration is 0.5X - 2X (concentration of the provided stock solution is 5X).
- It is recommended to add the FastPfu Fly DNA Polymerase last in the reaction system.
- For GC-rich templates, the recommended denaturation temperature is 98 °C.
- If precipitates in the FastPfu Fly Reaction Mix are observed, warm to 37 °C in a water bath and mix before use.