

MBT068

Hi-Proof DNA Polymerase (5 units/μl)

Product Name	Product code	Packing (100U)	Packing (200U)	Packing (500U)
Hi-Proof DNA Polymerase	MBT068	20 μl	40 μl	100 μl
10X HiBuffer (with MgSO ₄)	DS0586	400 μl	800 μl	2ml
dNTP Mix (2 mM each)	DS0587	400 μl	800 μl	2 ml
Molecular Biology Grade Water	DS0588	1 ml	2ml	4 ml

Description:

Hi-Proof DNA Polymerase is an extremely thermostable polymerase from the hyperthermophilic archaeum *Pyrococcus furiosus*. Hi-Proof DNA Polymerase catalyzes the polymerization of nucleotides into duplex DNA in the 5' to 3' direction in the presence of Mg²⁺. It exhibits the 3' to 5' exonuclease (Proofreading) activity that enables the polymerase to correct nucleotide incorporation errors resulting in over 10-fold higher fidelity than possible with Taq DNA Polymerase. It has no 5'=>3' exonuclease activity.

Features:

- Thermostable enzyme of approximately 90 kDa from *Pyrococcus furiosus*
- Ultra pure recombinant protein
- Eight times more accurate than Taq DNA polymerase
- Highly thermostable – remains 95% active after 2 hours incubation at 95°C.
- Generates blunt-end PCR products.
- Incorporates modified nucleotides (E.g.- biotin, deoxygenin, fluroscently-labelled nucleotides)

Applications:

- High fidelity PCR
- Generation of PCR products for cloning and expression
- RT-PCR for cDNA cloning and expression
- Blunt-end PCR cloning
- Site-directed mutagenesis

Molecular Weight: 90kDa

Source: *E.coli* cells with a pol gene from *Pyrococcus furiosus*

PCR Mix Preparation:

Components	Volume to be added*
10X Buffer	2µl
Hi-Proof DNA Polymerase	0.1 µl
dNTP Mix	2µl
Template DNA	1µl
Forward Primer (10 pmoles/µl)	1µl
Reverse Primer (10 pmoles/µl)	1µl
Molecular Biology Grade Water	upto 20µl

* for 20µl Reaction

PCR Conditions:

Initial Denaturation	95°C	2 min
Denaturation	95°C	30 sec
Annealing	55-65°C	30-60 sec
Extension	72°C	1 min/ kb
Number of Cycles	25-35	
Final Extension	72°C	5 min

Quality Control:

All preparations are assayed for contaminating endonuclease, exonuclease, and non-specific DNase activities. Functionally tested in DNA amplification.

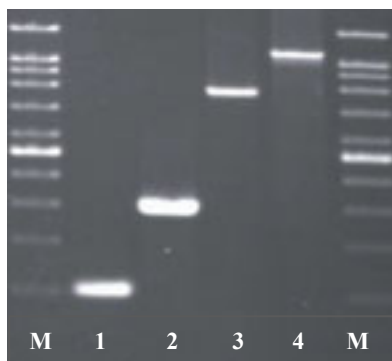





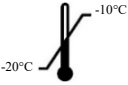




Figure representing amplification of different amplicon sizes using Hi-Proof DNA Polymerase

Storage conditions: The Hi-Proof DNA Polymerase (5 units/µl) should be stored at -20°C. When stored under the recommended conditions, the product is stable for 2 years.

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at mb@himedialabs.com.

Symbols

	Manufacturer		Do not use if package is damaged
	Batch code		Temperature limit
	Date of manufacture (YYYY-MM)		Consult instructions for use
	Use-by date (YYYY-MM)		Catalogue number

Identification No.: PIMBT068

Rev.No.:10

Date of Issue: 2026-04

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

HiMedia Laboratories Pvt. Ltd. Reg.office : Plot No. C-40, Road No. 21Y, MIDC, Wagle Industrial Estate, Thane, (West) 400604, Maharashtra, INDIA. Customer Care No.: 00-91-22-6116 9797 Tel: 00-91-22-6147 1919, 6903 4800 Email:mb@himedialabs.com Website: www.himedialabs.com