

MBT068

Hi-Proof DNA Polymerase (5 units/μl)

Code	Packing	Concentration
MBT068-100U	100 units	5 units/μl
MBT068-200U	200 units	5 units/μl
MBT068-500U	500 units	5 units/μl

Supplied with,

- 10X HiBuffer
- dNTP Mix
- Molecular Biology Grade Water

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	2 μ l
Hi-Proof DNA Polymerase	0.1 μ l
dNTP Mix	2 μ l
Template DNA	1 μ l
Forward Primer (10 pmoles/ μ l)	1 μ l
Reverse Primer (10 pmoles/ μ l)	1 μ l
Molecular Biology Grade Water	upto 20 μ l

* for 20 μ l 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.

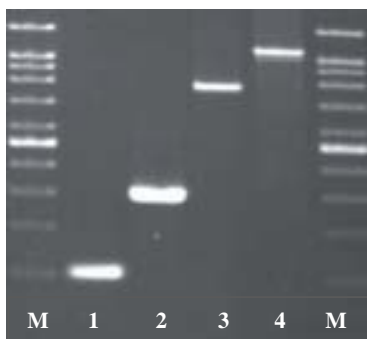


Figure representing amplification of different amplicon sizes using Hi-Proof DNA Polymerase

Storage conditions: The Hi-Proof DNA Polymerase 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.



Consult instructions for use



Do not use if package is damaged



HiMedia Laboratories Pvt. Limited,
Reg. Off: 23 Vadhani Industrial Estate,
LBS Marg, Mumbai - 400086,
India Works: B/4-6, M.I.D.C., Dindori,
Nashik, India (or respective plant address)
Customer Care No: 022-6116 9797
www.himedialabs.com

PIMBT068_O/0418

MBT068-06

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 diagnostic or therapeutic use but for laboratory, 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. A-516, Swastik Disha Business Park, Via Vadhani Ind. Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6147 1919 Email: techhelp@himedialabs.com Website: www.himedialabs.com