

Maximo Taq DNA Polymerase

Features:

Maximo Taq DNA Polymerase provides robust PCR performance in a wide range of PCR applications and different templates. Best value in terms of cost per unit.

Applications:

- Standard / General PCR
- Multiplex PCR
- High-throughput PCR
- Primer extension
- Gene mutation
- T/A cloning

Description:

Maximo Taq DNA Polymerase is a thermostable DNA polymerase that possesses a 5'→3' polymerase activity and a double-strand specific 5'→3' exonuclease activity. The enzyme consists of a single polypeptide with a molecular weight of 94KD.

Concentration: 5 u/μl

Unit definition:

One unit incorporates 10 nmol of deoxyribonucleotide into acid-precipitation material in 30min at 74 degree

Storage Buffer:

25mM Tris-HCl (pH8.0), 100mM KCl, 0.1mM EDTA, 1mM DTT, 50% Glycerol, 0.5% Nonident P40, 0.5% Tween 20

Reaction Buffers supplied with the enzyme:

10X Buffer I: 500mM KCl, 100mM Tris-HCl, pH 9.0, 1% Triton X-100, 15mM MgCl₂

10X Buffer II: 500mM KCl, 100mM Tris-HCl, p H 9.0. 1% Triton X-100

MgCl₂: 25 mM

Quality control:

- PCR with various templates – genomic DNA, Phage Lambda DNA
- 3 kb DNA amplification from 50 ng DNA
- batch variation and level of bacterial DNA contamination

Transportation: on blue ice

Storage: at -20°C for 24 months

Usage:

Components	Volume per reation
10X reaction buffer I or buffer II	5 μl
25 mM MgCl ₂	1.5 μl (if you use buffer II)
dNTP-Mix (40mM)	1.0 μl
Up-stream primer (10 μM stock)	0,5-2.5 μl
Down-stream primer (10μM stock)	0.5-2,5 μl
Template DNA	0.1-15 ng/ml plasmid DNA 1-10 μg/ml genomic DNA
Maximo Taq DNA Polymerase (5 u/μl)	0.2 - 1.0 μl
Sterile dest. Water (molecular grade)	up to 50 μl total reaction volume

Note:

- vortex all solutions carefully before using
- dispense all reagents on ice
- add the enzyme after Template DNA
- may you have to optimize the MgCl₂ concentration for best result

General Thermo-Cycler protocol:

Step	Time	Temperature
Initial denaturation	2-5 min	94-95 °C
25-30 Cycles:		
Denaturation	10-25 sec	94-95 °C
Annealing	10-25 sec	55-65 °C
Extension	60 sec	72 °C per 1kb
Final extension	5 min	72 °C

Order information:

Cat.-no	Description	Amount
S101	Maximo Taq DNA Polymerase	500 units
S102	Maximo Taq DNA Polymerase	5x500 units
S103	Maximo Taq DNA Polymerase	20x500 units
S104	Maximo Taq DNA Polymerase	100x500 units