

**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 94kDa.

**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

**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 MgCl<sub>2</sub>

**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

**Storage:** at -20°C for 24 months

## Usage:

Components	Volume per reaction
10X reaction buffer I or buffer II	5 µl
25 mM MgCl <sub>2</sub>	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 MgCl<sub>2</sub> 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

Prod. No.	Description	Quantity
S9101	Maximo Taq DNA Polymerase	500 Units
S9102	Maximo Taq DNA Polymerase	5 x 500 Units
S9103	Maximo Taq DNA Polymerase	20 x 500 Units