

Description:

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

Features:

Maximo Taq-Blue DNA Polymerase provides robust PCR performance in a wide range of PCR applications and different templates. After PCR reaction the enzyme can be loaded to agarose gel, no dye and DNA loading buffer is needed. The enzyme is time- and cost saving, because it includes dye and loading buffer, already.

Applications:

- Standard / General PCR with visible control
- High-throughput PCR
- Primer extension
- Gene mutation
- T/A cloning

Concentration: 1 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% NP 40, 0.5% Tween 20, in blue loading buffer

Reaction Buffers supplied with the enzyme:

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

MgCl₂: 100 mM

Transportation: on blue ice

Storage: at -20°C for 12 months

Usage:

Components	Volume per reaction
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-Blue Polymerase (1 u/µl)	0.8 µl - 2 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

Prod. No.	Description	Quantity
S9111	Maximo Blue Taq DNA Polymerase	500 Units
S9112	Maximo Blue Taq DNA Polymerase	5 x 500 Units
S9128	Maximo Blue Taq DNA Polymerase	20 x 500 Units
S9129	Maximo Blue Taq DNA Polymerase	100 x 500 Units or as bulk