

**Description:**

Maximo Taq DNA Polymerase 2X-preMix is optimized and ready-to-use mixture of all components for a successful PCR. Only your primers and your DNA Template has to be added.

Maximo Taq DNA Polymerase 2X-preMix contains 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 DNA Polymerase 2X-preMix provides robust PCR performance in a wide range of PCR applications and different templates. Best value in terms of cost per unit. The optimized mixture of all components reduces pipetting mistakes and ensures repeatable results - every day.

**Applications for PCR Mastermix:**

- Standard / General PCR
- optimized for high specificity
- High-throughput PCR, automated pipetting, or plate based PCR
- Gene mutation
- T/A cloning

**Concentration:** the mixture is 2X concentrated (Mg<sup>2+</sup>: 3,6 mM, 1,8 mM final)

**Unit definition:**

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

**List of components:**

0.1U/ul Taq DNA Polymerase, 0.4 mM dATP, 0.4 mM dGTP, 0.4 mM dCTP, 0.4 mM dTTP, 4 mM MgSO<sub>4</sub>, 20 mM KCl, 16 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 20 mM Tris-HCl, pH8.8

**Quality control:**

- PCR with various templates – genomic DNA, Phage Lambda DNA
- 2 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

Components	Volume per reaction
2X Taq mastermix	25 µl
Up-stream primer (10 µM stock)	0,5-2.5 µl
Down-stream primer (10 µM stock)	0.5-2,5 µl
Template DNA	0.1-15 ng/ml plasmid DNA 1-10 µg/ml genomic DNA
Sterile dest. Water (molecular grade)	up to 50 µl total reaction volume

**Note:**

- vortex all solutions and spin down carefully before using
- dispense on ice and spin down again
- may you have to optimize the MgCl<sub>2</sub> concentration for best result

**General Thermo-Cycler protocol:**

Step	Time	Temperature
Initial denaturation	1-5 min	94-95°C
<b>25-30 Cycles:</b>		
Denaturation	10-25sec	94-95°C
Annealing	10-25 sec	45-70°C
Extension	60 sec	68-72°C per 1kb
Final extension	5 min	68-72°C

**Order Information**

Prod. No.	Description	Quantity
S9113	Maximo Taq DNA Polymerase	2 x 100 rcs
S9114	Maximo Taq DNA Polymerase	10 x 100 rcs