

Taq DNA Polymerase 100 Units

Cat No.110001

DATA-SHEET

Taq DNA Polymerase is a thermostable enzyme of approximately 94kDa, isolated from Eubacterium Thermus aquaticus strain YT-1(1). This unmodified enzyme replicates DNA at 72 °C. The enzyme catalyzes the polymerization of nucleotides into duplex DNA in the 5'-->3' direction in the presence of magnesium ions and also possesses a 5'-->3' exonuclease activity. The enzyme is highly purified and is free of non-specific endo or exo nucleases. Taq DNA polymerase leaves single 3'-dA nucleotide overhangs on their reaction product.

UNIT DEFINITION :

One unit of Taq Polymerase activity is defined as the amount of enzyme required to incorporate 10nmoles of dNTP's into acid-insoluble DNA fraction in 30 minutes at 72°C.

CONCENTRATION PROVIDED : 5000 Units/ml i.e. 5 Units/μl

Storage Buffer : 10mM K-phosphate (pH 7.4), 0.1mM EDTA, 50% glycerol, 0.1% Triton X-100 and 0.1% Tween 20.

CONTENTS OF THE PACK :

| | | |
|---------------------------------|--------|----------|
| 100 units of Taq DNA polymerase | 20 μl | - 1 Vial |
| 10 X Reaction buffer | 0.5 ml | - 1 Vial |
| 25 mM MgCl ₂ | 0.5 ml | - 1 Vial |
| Mol. Grade water | 1.5 ml | - 1 Vial |

10X Reaction Buffer complete including Magnesium (2.5mM final 1x Conc.)

160mM (NH₄)₂SO₄, 670mM Tris-HCL pH 8.8, 0.1% Tween-20 and 25mM MgCl₂

Mol grade water: Water is supplied in 1.5 ml quantity, which is RNase and DNase free. Advisable to aliquot the Mol. Grade water.

MgCl₂ Solution : 0.5 ml of 25mM MgCl₂ Solution (In case higher Conc. of Mg is to be used)

Storage Conditions : Recommended storage temperature is -20 °C.

PACK SIZE AVAILABLE:

| Cat. No. | PRODUCT | Pack Size |
|----------|--------------------|-----------------------|
| 110001 | Taq DNA Polymerase | 100 U |
| 110002 | Taq DNA Polymerase | 250 U |
| 110003 | Taq DNA Polymerase | 500 U (250 U x 2) |
| 110004 | Taq DNA Polymerase | 1000 U (250 U x 4) |
| 110005 | Taq DNA Polymerase | 10000 U (1000 U x 10) |

References:

- Kaledin, A.S., Sliusarenko, A.G. and Gorodetskii, S.I. (1980) Biokhimiya 45, 644(Rus)
- Innis, M.A. et al., Proc. Natl. Acad. Sci. USA 85, 9436 (1988)

NOTE : For research use only. Not for use in Diagnostic or therapeutic procedures.

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