

Taq DNA Polymerase (with dNTPs), Economy

02-001 200 U (5U/ul), 02-001-5 5 x 200 U (5U/ul)

Thermus aquaticus DNA polymerase (**Taq DNA polymerase**) was expressed in *E. coli* in large quantities and highly purified. The enzyme has thermostable DNA polymerase activity and the MW is 94 kDa. This enzyme is suitable for PCR reactions; capable of amplifying DNA with various primers.

Applications:

- 1) High-throughput PCR
- 2) Colony PCR
- 3) Incorporation of dUTP, dITP, and fluorescence-labeled nucleotides
- 4) Primer extension
- 5) Addition of a single nucleotide (adenosine) at the 3'-blunt ends

Storage Conditions:

20mM Tris-HCl (pH 8.0), 100mM KCl, 0.1mM EDTA, 1mM DTT, 50% glycerol, 0.5% Tween20, 0.5% Igepal CA-630, Store at -20°C

Concentration: 5 units/ul, where one unit is defined as the amount of enzyme that can incorporate 10 nmols of total dNTPs into an acid-insoluble material in 30 minutes at 74°C when activated salmon sperm DNA was used as template/primer.

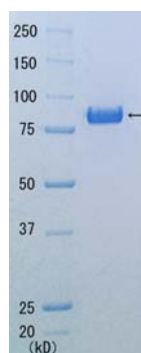
Quality Assurance: Greater than 95% purity as determined by SDS-PAGE (CBB staining) (Fig.1)

The absence of endonucleases and exonucleases was confirmed.

PCR Test: Good amplification result was obtained in PCR reaction using λDNA as a template (Fig.2).

Reagents Supplied with Enzyme:

10 x Standard Buffer (*Taq*): 100mM Tris-HCl (pH 8.3), 500mM KCl, 15mM MgCl₂
2.5mM(each) dNTPs



TaqDNA polymerase

PCR condition

98°C 10sec
57°C 30sec
72°C 8min
(2min in the case of
2kb DNA)

Lane M : marker

1 : 2 kb
2 : 4 kb
3 : 6 kb
4 : 8 kb



Fig.1 SDS-PAGE of *Taq* DNA polymerase

Fig.2 Amplification of λ DNA

Related product: # 02-021 Pfu DNA polymerase (+dNTPs), Economy

02-031 Pfu DNA polymerase (-dNTPs), Economy