

Data sheet

This data sheet provided for information only

DiaTaq DNA POLYMERASE

RESEARCH USE ONLY**Recombinant DiaTaq DNA Polymerase**

(Deoxynucleosidetriphosphate: DNA Deoxynucleosidyltransferase E.C. 2.7.7.7.)

SOURCE:

Thermus Auqaticus YT1 strain

| Cat.No. | Pack | Conc. |
|----------------|-------------------|---------------|
| DT-250 | 250 Units | 5 U/μl |
| DT-1000 | 1000 Units | 5 U/μl |

DESCRIPTION

DiaTAQ DNA Polymerase is a thermostable 94 kDa DNA Polymerase purified from E.coli PVG-AI recombinant strain expressing **Thermus aquaticus** polymerase gene.

The enzyme catalyzes polymerization of nucleotides into duplex DNA in the 5'-3' direction in presence of Mg²⁺ ions. The enzyme possesses also a 5'-3' exonuclease activity. Amplification of target DNA fragments from 100 b.p. to 4000 b.p. can be achieved with this enzyme.

Stability:

Shelf life 24 months if store at -20°C

UNIT DEFINITION

One unit defined as the amount of enzyme that incorporates 10 nmoles of dNTP's into acid-insoluble form in 30 minutes at 74°C under assay conditions.

STORAGE AND DILUTION BUFFER:

20mM Tris-HCL (pH 8.0);100mM KCL;0.1mM EDTA; 1mM DTT; 50 glycerol; 0.5% Nonidet P-40;0.5% Tween-20

ASSOCIATED ACTIVITIES:

Endonuclease and exonuclease activities were not detectable after 2 and 1 hours incubation, respectively, of 1 μg lambda DNA and 0.22 μg of EcoR I digested lambda DNA, respectively, at 72°C in the presence of 15-20 units of **DiaTaq** DNA polymerase

AMPLIFICATION BUFFERS:

10X NH4-buffer: 166mM (NH₄)₂SO₄; 670mM Tris-HCL (pH 8.8 at 25°C); 0.1% Tween-20.

APPLICATIONS:

- Routine PCR
- Primer extension
- DNA sequencing

5X "Ready-to-load" NH4-buffer: 166mM (NH₄)₂SO₄; 670mM Tris-HCL (pH 8.8 at 25°C);0.1% Tween-2; two inherent dyes; stabilizers

STORAGE CONDITIONS :

Store **DiaTaq** DNA Polymerase at -20°C for long term storage

SHIPPING CONDITIONS:

Should be shipped at ambient temperature
For long distance shipments preferably in **Blue Ice**