

Data sheet

This data sheet provided for information only

DiaTaq^{HC} DNA Polymerase

RESEARCH USE ONLY**Recombinant DiaTaq^{HC} DNA Polymerase**

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

SOURCE:

Thermus Auqaticus YT1 strain

Cat.No.	Pack	Conc.
DTC-1S	1000 Units	15-25 U/μl
DTC-5M	5000 Units	15-25 U/μl

DESCRIPTION

DiaTaq^{HC} 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 Mg⁺⁺ 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

AMPLIFICATION BUFFERS:

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

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

ASSOCIATED ACTIVITIES:

Endonuclease and exonuclease activities were not detectible after 2 and 1 hours incubation, respectively, of 1 μ g lambda DNA and 0.22 μ g of EcoR I digested lambda DNA, respectively, at 72°C in the presence of 15-20 units of **DiaTaq^{HC}** DNA polymerase

APPLICATIONS:

- Master MIX preparation
- Lyophilized Master MIX preparation
- Routine PCR
- Primer extension

STORAGE CONDITIONS :

Store **DiaTaq^{HC}** 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**