

T7 DNA Polymerase

Cat.#	Conc.	Size
DP003S	10 units/ μ l	300 units
DP003L	10 units/ μ l	1,500 units

Store at -20°C

Supplied With: 10X T7 DNA Polymerase Buffer
100X BSA (10 mg/ml)
Sterile water

India Contact:

Life Technologies (India) Pvt. Ltd.
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Product description

T7 DNA Polymerase dimer has DNA polymerase and strong 3' \rightarrow 5' exonuclease activities. It catalyzes the replication of T7 phage DNA during infection. The high fidelity and rapid extension rate make it possible to copy long stretches of DNA template.

Characteristics

- Isolated from a recombinant source
- Second strand synthesis in site-directed mutagenesis
- Gap filling reaction (no strand displacement)

Applications

- Second strand synthesis in site-directed mutagenesis protocols.

Unit Definition

One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 37°C.

Reaction Conditions

1X T7 DNA polymerase Buffer, 1X BSA, Incubate at 37°C

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Storage Conditions

50 mM KPO₄, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, pH 7.0 @ 25°C, Store at -20°C.

Heat Inactivation

75°C for 20 min

Quality Control

- Endonuclease-free

Cautions

- Long incubation is unnecessary due to high polymerization rate of the enzyme.
- It is not suitable for DNA sequencing.

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Standard reaction conditions

Example : Protocol for second strand synthesis/mutagenesis

Pre-annealed primer/template (0.4 pmol template/2 pmol primer)	10 μ l
10X T7 DNA Polymerase Buffer	4 μ l
dNTP mixture (2 mM each)	5 μ l
T7 DNA Polymerase (10 units/ μ l)	1 μ l
T4 DNA Ligase	5 units
Sterile water	Up to 40 μ l

\rightarrow Incubate at 37°C for 60 min.

\rightarrow Incubate 10 min at 70°C to stop the reaction.

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