enzynomics

T4 DNA Polymerase

Cat.#	Conc.	Size
DP004S	3 units/µl	150 units
DP004L	3 units/µl	750 units

Store at -20℃

Supplied With: 10X T4 DNA Polymerase Buffer
100X BSA (10 mg/ml)
Sterile water

India Contact:

Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura,
Delhi – 110034 (INDIA).
Ph: +91-11-42208000, 42208111, 42208222
Mobile: +91-9810521400
Fax: +91-11-42208444
Email: customerservice@lifetechindia.com
Web: www.lifetechindia.com

Product description

T4 DNA Polymerase has 5′ → 3′ polymerase activity and 3′ → 5′ exonuclease activity which is much more active than that found in DNA Polymerase I (*E. coli*).
However, T4 DNA Polymerase does not have a 5′ → 3′ exonuclease function.

Characteristics

- Extreme fidelity
- Gap filling (no strand displacement activity)
- Best enzyme for creating blunt ends
- Isolated from a recombinant source

Applications

- 3′ overhang removal to form blunt ends
- 5′ overhang fill-in to form blunt ends
- Single strand deletion subcloning
- Second strand synthesis in site-directed mutagenesis
- Probe labeling using replacement synthesis

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℃.

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

ISO9001 ISO14001 ISO13485

Reaction Conditions

1X T4 DNA Polymerase Reaction Buffer, 1X BSA, Incubate at 12℃.

Storage Conditions

100 mM KPO4, 1 mM DTT, 50% Glycerol, pH 6.5 @ 25℃, Store at -20℃.

Heat Inactivation

75℃ for 20 min

Quality Control

- Endonuclease-free

Cautions

- dNTP concentrations may differ for different protocols.
- T4 DNA Polymerase is active in all four EzBuffers as well as T4 DNA Ligase Reaction Buffer with dNTPs and BSA.
- Heat inactivate T4 DNA Polymerase at 75℃ for 20 minutes with 10 mM EDTA.

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Standard reaction conditions

Example : Fill-in of 3' recessed (5' overhang) ends

DNA	1 µg
10X T4 DNA Polymerase Buffer	1 µl
dNTP mixture (2 mM each)	5 µl
T4 DNA Polymerase (3 units/µl)	1 unit
Sterile water	Up to 10 µl

→ Incubate at 12℃ for 15 min.
→ Incubate at 75℃ for 20 min with 10 mM EDTA.

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