DATA SHEET

canvax

Version: 2 Revision date: 05/06/2023

1. Identification

Product name

T4 DNA Polymerase 500U (5U/µl)

P0043

Cat. No

2. Description

Bacteriophage T4 DNA polymerase is a DNA-directed 5' to 3' DNA polymerase. It is the product of gene 43 of the bacteriophage T4 and is therefore often referred to as T4 gp43 DNA Polymerase. The enzyme catalyzes the polymerization of deoxynucleotide triphosphates in a 5' to 3' direction. It possesses very active 3' to 5' exonuclease activity that is more active on single than double stranded DNA; T4 DNA polymerase has no 5' to 3' exonuclease activity. For polymerase activity the enzyme requires DNA with a 5' protruding end and a high concentration of dNTPs.

deoxyribonucleotides into a polynucleotide fraction (adsorbed on

3. Protein informationStorage bufferReaction Buffer (5X)20 mM potassium phosphate (pH 7.5), 200 mM KCl, 2 mM DTT, and
50% glycerol
335 mM Tris-HCl (pH 8.8 at 25°C), 33 mM MgCl2, 5 mM DTT, 84 mM
(NH4)2SO4..
One unit of the enzyme catalyzes the incorporation of 10 nmol of

DE-81) in 30 min at 37°C.

Biological activity

4. Storage specifications

Store at -20°C. Avoid exposure to constant temperature changes.

5. Applications

- Generation of blunt double-stranded DNA from DNA containing 5' overhangs
- Generation of blunt double-stranded DNA from DNA containing 3' overhangs
- ➢ 5'-end or 3'-end labeling of double-stranded DNA
- In vitro mutagénesis

6. Further information

Product	This product is developed, designed and sold exclusively only for research purposes use.
Use	The product was not tested for use in diagnostics or for drug development, nor is it suitable
Limitations	for administration to humans or animals.
Disclaimer	The information provided in this Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide and should not be taken as a warranty or quality specification. Canvax Reagents S.L.U. shall not be held liable for any damage resulting from handling or from contact with the above product.

Recomended protocol for DNA blunting of 5'- or 3'-overhangs.



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T4 DNA Polymerase	0.2µl (1U)
5X reaction buffer	4 µl
Linear DNA or PCR product	1µg
dNTP Mix (8mM)	1µl
H20, nuclease-free	up to 20 µl

- Mix thoroughly, spin briefly and incubate at 11°C for 20 minutes or at room temperature for 5 minutes.
- Stop the reaction by heating at 75°C for 10 minutes.