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DATA SHEET

Version: 2
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1. Identification

Product name	**DNA Polymerase I (*E. coli*)** (10U/µl) 500U
Cat. No	**P0040**

2. Description

DNA Polymerase I is a multifunctional enzyme that combines a DNA polymerase activity, a 5´→ 3´exonuclease activity and a 3'→5' proofreading exonuclease activity. The 5´→3´ exonuclease acθvity enables the enzyme to use nicks and gaps in the DNA as starting points for labelling DNA by nick translation.

3. Protein information

Storage buffer	25 mM Tris-HCl (pH 7.5), 0.1 mM EDTA, 1 mM DTT and 50% (v/v) glycerol.
Reaction Buffer (10X)	500 mM Tris-HCl (pH 7.5 at 25°C), 100 mM MgCl2, 10 mM DTT.
Biological activity	One unit of the enzyme catalyses the incorporation of 10 nmol of deoxyribonucleotides into a polynucleotide fraction in 30 min at 37°C, using poly(dA-dT)·poly(dAdT) as a template primer.

4. Storage specifications

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

5. Applications

- High percentage incorporation of radioactivity for nick translation assays
- Manufacturing of alternating copolymers such as poly d(A-T) and homopolymers such as poly dG-poly dC
- DNA repair, gap filling and second-strand cDNA synthesis.

6. Further information

Product Use Limitations	This product is developed, designed and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.
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