

DNA Polymerase β (rat)

10-101 20 μ g, 10-102 100 μ g

DNA polymerase β is a distributive polymerase involved in base excision repair which repairs damaged DNA by excising modified bases (oxidized, methylated, deaminated etc.) (ref. 1).

This product is highly purified full-length rat **DNA polymerase β** overproduced in *E. coli* with high enzymatic activity without any tag attached (ref.2). The enzyme has molecular mass of 38 kDa (Fig.1). The amino acid sequence of the rat enzyme has 86% identity to the human homolog.

Applications

- 1) For the studies on the mechanisms of base-excision repair of DNA damage
- 2) As a positive control for Western blotting with anti-DNA polymerase β antibody

Specification

Enzyme activity: 90 unit/ μ l (1 unit of the enzyme activity incorporates 1 nanomole of dNTP into acid-insoluble fraction at 37°C in 60 min.)

Purity: Over 95% purity by SDS-PAGE analysis

Form: 1.3 mg/ml in 50mM Tris-HCl pH7.6, 0.3M KCl, 0.1mM EDTA, 1mM DTT, 20% glycerol

Storage: Shipped at 4°C or with dry-ice. Store at -80°C for long period

Data Link UniProtKB/Swiss-Prot [P06766](#) (DPOLB_RAT)

References: This product is described and produced as in Ref 2

1. Friedberg EC *et al* *DNA Repair and Mutagenesis* 2nd ed., ASM Press (2006)
2. Date T *et al* "Expression of active rat DNA polymerase beta in Escherichia coli." *Biochemistry* **27**: 2983-2990 (1988) PMID: [3042024](#)



Fig.1 SDS-PAGE analysis of DNA polymerase β

M: Molecular weight markers (from top: 250, 150, 100, 75, 50, 37, 25, 20 kDa)

Lane1: DNA polymerase β (rat)

Related product:

70-041 Anti-DNA polymerase β antibody, rabbit polyclonal (cross-reacts: human, rat, mouse, hamster)