

## DNA Polymerase $\beta$ (rat)

10-101 20 ug, 10-102 100ug

DNA polymerase  $\beta$  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  $\beta$  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 of western blotting with anti-DNA polymerase  $\beta$  antibody

### Properties of the product

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

**Purity:** Over 95% pure 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

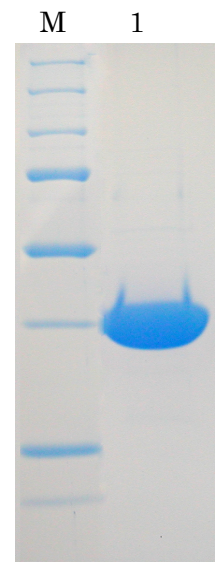
**Storage:** -20°C (long period, 70°C)

### References: This product is described in ref. 2

1. Friedberg EC, et al. DNA Repair and Mutagenesis 2<sup>nd</sup> ed., ASM Press (2006)
2. Date T. et al. Biochemistry 27: 2983 (1988)

Fig.1 SDS-PAGE analysis of DNA polymerase  $\beta$

M Molecular weight markers (from top: 250, 150, 100, 75, 50, 37, 25, 20 kDa)  
Lane 1 DNA polymerase  $\beta$  (rat)



### Related product

#70-041 anti-DNA polymerase  $\beta$  (rat) antibody , cross-reacts with human and mouse homologs.

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