



## DNA Polymerase $\beta$ (rat)

Product No. : BAM-10-101 20  $\mu$ g  
BAM-10-102 100  $\mu$ g

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.

### Specification

Enzyme activity: 90 unit/ul (1unit 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)

### Application

- 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.

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)



### Reference:

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)

### Related product

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

*For research use only; not for use as a diagnostic.*

