

Recombinant Rat Polymerase (DNA Directed), Beta

Cat. No. Polb-766R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat DNA polymerase β overproduced in <i>E. coli</i> with high enzymatic activity without any tag attached. The enzyme has molecular mass of 38 kDa. The amino acid sequence of the rat enzyme has 86% identity to the human homolog.
Species	Rat
Source	E.coli
Description	DNA polymerase β is a distributive polymerase involved in base excision repair which repairs damaged DNA by excising modified bases (oxidized, methylated, deaminated etc.).
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.
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 β antibody.
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.)
Storage	-20°C (long period, 70°C).

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

GENE INFORMATION

Gene Name	Polb polymerase (DNA directed), beta [<i>Rattus norvegicus</i>]
Synonyms	Polb; polymerase (DNA directed), beta; DNA polymerase beta; DNA pol beta; polymerase-beta; DNA-directed DNA polymerase beta
Gene ID	29240
mRNA Refseq	NM_017141
Protein Refseq	NP_058837
UniProt ID	P06766
Chromosome Location	16q12.5
Pathway	Base excision repair
Function	DNA binding; DNA-directed DNA polymerase activity; damaged DNA binding; enzyme binding; lyase activity; metal ion binding; microtubule binding; nucleotidyltransferase activity; protein binding; transferase activity

PDB rendering based on 1bno.



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