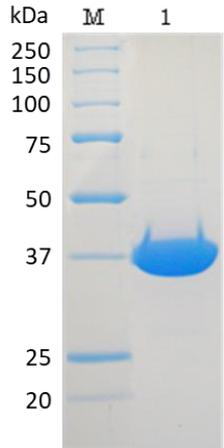


## DNA polymerase $\beta$ (rat)

<b>Product code</b>	10-101      10-102
<b>Size</b>	20 $\mu$ g      100 $\mu$ g
<b>Storage</b>	-80°C      Avoid freeze-thaw cycles.
<b>Product Description</b>	This product is highly purified full-length rat <b>DNA polymerase <math>\beta</math></b> overproduced in <i>E. coli</i> 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.
<b>Concentration</b>	1.3 mg/ml
<b>Buffer</b>	50mM Tris-HCl pH7.6, 0.3M KCl, 0.1mM EDTA, 1mM DTT, 20% glycerol
<b>Enzyme Activity</b>	90 unit/ $\mu$ l (1 unit of the enzyme activity incorporates 1 nanomole of dNTP into acid-insoluble fraction at 37°C in 60 min.)
<b>Purity</b>	Over 95% purity by SDS-PAGE analysis
<b>Application</b>	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 $\beta$ antibody
<b>Background</b>	<b>DNA polymerase <math>\beta</math></b> is a distributive polymerase involved in base excision repair which repairs damaged DNA by excising modified bases (oxidized, methylated, deaminated etc.) (ref. 1).
	 <p>Fig.1 SDS-PAGE analysis of DNA polymerase <math>\beta</math> Lane1: DNA polymerase <math>\beta</math> (rat)</p>
<b>Data Link</b>	UniProtKB: <a href="https://www.uniprot.org/entry/P06766">P06766</a> (DPOLB_RAT)
<b>References</b>	This product is described and produced as in Ref 2 1. Friedberg EC <i>et al DNA Repair and Mutagenesis</i> 2 <sup>nd</sup> ed., ASM Press (2006) 2. Date T et al “Expression of active rat DNA polymerase beta in Escherichia coli.” <i>Biochemistry</i> 27: 2983-2990 (1988) PMID: <a href="https://pubmed.ncbi.nlm.nih.gov/3042024/">3042024</a>
<b>Related product</b>	70-041 Anti-DNA polymerase $\beta$ antibody, rabbit polyclonal
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	