



## Rabbit Anti-DNA Polymerase beta antibody

SL8525R

<b>Product Name:</b>	DNA Polymerase beta
<b>Chinese Name:</b>	DNA聚合酶β抗体
<b>Alias:</b>	DNA Polymerase beta; DNA pol beta; DNA directed DNA polymerase beta; DNA polymerase beta; DNA polymerase beta subunit; DPOLB_HUMAN; MGC125976; Pol B; Pol beta; PolB; Polymerase (DNA directed) beta.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:50-200 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	37kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human DNA Polymerase beta:55-160/335
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	DNA replication, recombination and repair, all of which are necessary for genomic stability, require the presence of exonucleases (1). In DNA replication, these enzymes are involved in the processing of Okazaki fragments, whereas in DNA repair, they function to excise damaged DNA fragments and correct recombinational mismatches

(2). These exonucleases include the family of DNA polymerases (3). DNA pol  $\alpha$ ,  $\beta$ ,  $\delta$ , and  $\epsilon$  are involved in DNA replication and repair (4). DNA pol  $\delta$  and DNA pol  $\epsilon$  are multisubunit enzymes, with DNA pol  $\delta$  consisting of two subunits p125, which interacts with the sliding DNA clamp protein PCNA, and p50 (5). The nuclear-encoded DNA pol  $\gamma$  is the only DNA polymerase required for the replication of the mitochondrial DNA (6). DNA pol  $\Omega$  is ubiquitously expressed in various tissues and mediates the cellular mechanism of damage-induced mutagenesis (7). DNA pol  $\alpha$  is a DNA polymerase-helicase that binds ATP and is involved in the repair of interstrand crosslinks (8).

**Function:**

Repair polymerase that plays a key role in base-excision repair. Has 5'-deoxyribose-5-phosphate lyase (dRP lyase) activity that removes the 5' sugar phosphate and also acts as a DNA polymerase that adds one nucleotide to the 3' end of the arising single-nucleotide gap. Conducts 'gap-filling' DNA synthesis in a stepwise distributive fashion rather than in a processive fashion as for other DNA polymerases.

**Subcellular Location:**

Monomer. Interacts with APEX1, HUWE1/ARF-BP1, STUB1/CHIP and USP47.

**Post-translational modifications:**

Methylation by PRMT6 stimulates the polymerase activity by enhancing DNA binding and processivity.

**Similarity:**

Belongs to the DNA polymerase type-X family.

**SWISS:**

P06746

**Gene ID:**

5423

**Database links:**

[Entrez Gene: 5423](#)Human

[Entrez Gene: 18970](#)Mouse

[Entrez Gene: 29240](#)Rat

[Omim: 174760](#)Human

[SwissProt: P06746](#)Human

[SwissProt: Q8K409](#)Mouse

[SwissProt: P06766](#)Rat

[Unigene: 654484](#)Human

[Unigene: 123211](#)Mouse

[Unigene: 473777](#)Mouse

[Unigene: 9346](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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