

Product datasheet for **AP06087PU-N**

DNA Polymerase beta (POLB) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on Paraffin sections: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of DNA polymerase beta / DPOLB protein (region surrounding Gln324).
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~38 kDa
Gene Name:	polymerase (DNA) beta
Database Link:	<u>Entrez Gene 18970 Mouse</u> <u>Entrez Gene 29240 Rat</u> <u>Entrez Gene 5423 Human</u> <u>P06746</u>



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Background:

DNA replication, recombination and repair, all of which are necessary for genomic stability, require the presence of exonucleases. 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. These exonucleases include the family of DNA polymerases. DNA pol α , β , δ and ϵ are involved in DNA replication and repair. DNA pol δ and DNA pol ϵ are multisubunit enzymes, with DNA pol δ consisting of two subunits—p125, which interacts with the sliding DNA clamp protein PCNA, and p50. The nuclear-encoded DNA pol γ is the only DNA polymerase required for the replication of the mitochondrial DNA. DNA pol ζ is ubiquitously expressed in various tissues and mediates the cellular mechanism of damage-induced mutagenesis. DNA pol θ is a DNA polymerase-helicase that binds ATP and is involved in the repair of interstrand crosslinks.

Synonyms:

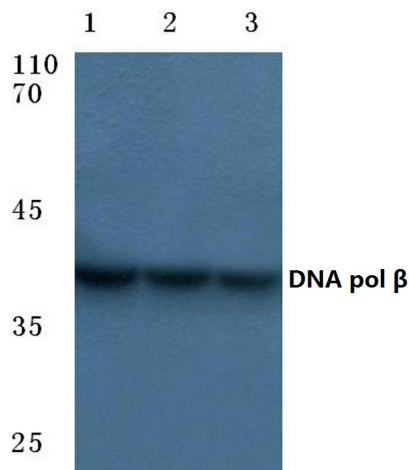
POLB

Protein Families:

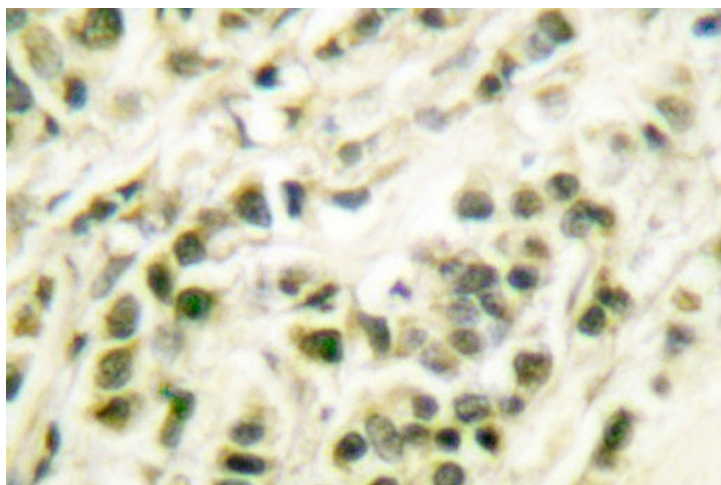
Druggable Genome

Protein Pathways:

Base excision repair

Product images:

Western blot (WB) analysis of DNA pol β antibody (Cat.-No.: AP06087PU-N) at 1/500 dilution Lane 1:Hela cell lysate Lane 2:sp2/0 cell lysate Lane 3:Rat brain tissue lysate



Immunohistochemical analysis in paraffin-embedded human breast carcinoma tissue using DNA polymerase beta Antibody Cat.-No AP06087PU-N.