

DNA Polymerase β Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50642**Specification**

DNA Polymerase β Antibody - Product Information

Application	WB, IHC
Primary Accession	P06746
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38 KDa
Antigen Region	310-335

DNA Polymerase β Antibody - Additional Information**Gene ID** 5423**Other Names**

DNA polymerase beta, 4299-, POLB

Dilution

WB~~1:1000

IHC~~1:50-1:100

FormatRabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.**Storage Conditions**

-20°C

DNA Polymerase β Antibody - Protein Information**Name** POLB**Function**

Repair polymerase that plays a key role in base-excision repair (PubMed:10556592, PubMed:9207062, PubMed:9572863). During this process, the damaged base is excised by specific DNA glycosylases, the DNA backbone is nicked at the abasic site by an apurinic/apyrimidic (AP) endonuclease, and POLB removes 5'-deoxyribose-phosphate from the preincised AP site acting as a 5'-deoxyribose-phosphate lyase (5'-dRP lyase); through its DNA polymerase activity, it adds one nucleotide to the 3' end of the arising single-nucleotide gap (PubMed:10556592, PubMed:17526740, PubMed:9556598).

target="_blank">9556598, PubMed:9572863, PubMed:9614142). Conducts 'gap-filling' DNA synthesis in a stepwise distributive fashion rather than in a processive fashion as for other DNA polymerases. It is also able to cleave sugar-phosphate bonds 3' to an intact AP site, acting as an AP lyase (PubMed:9614142).

Cellular Location

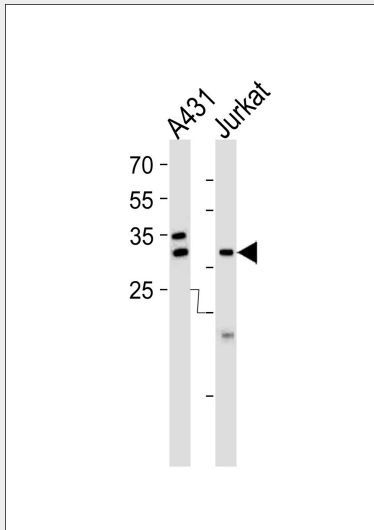
Nucleus. Cytoplasm. Note=Cytoplasmic in normal conditions. Translocates to the nucleus following DNA damage

DNA Polymerase β Antibody - Protocols

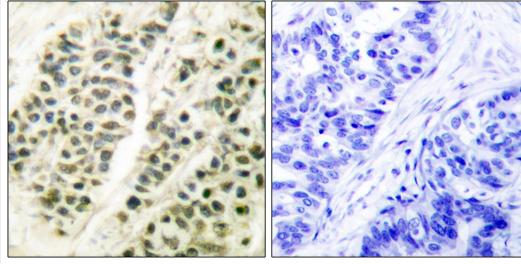
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DNA Polymerase β Antibody - Images



Western blot analysis of lysates from A431, Jurkat cell line (from left to right), using DNA Polymerase β Antibody (AP50642). AP50642 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35 μ g per lane.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using DNA Polymerase β antibody .

DNA Polymerase β Antibody - Background

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.

DNA Polymerase β Antibody - References

Patterson T.A.,et al.Protein Expr. Purif. 18:100-110(2000).
Dobashi Y.,et al.Hum. Genet. 95:389-390(1995).
Chyan Y.-J.,et al.Nucleic Acids Res. 22:2719-2725(1994).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

DNA Polymerase β Antibody - Citations

- [Progression Risk Score Estimation Based on Immunostaining Data in Oral Cancer Using Unsupervised Hierarchical Clustering Analysis: A Retrospective Study in Taiwan](#)
- [Silencing DNA Polymerase \$\beta\$ Induces Aneuploidy as a Biomarker of Poor Prognosis in Oral Squamous Cell Cancer](#)