

**DNA pol  $\beta$  Polyclonal Antibody**  
Catalog # AP69552**Specification**

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**DNA pol  $\beta$  Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P06746</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**DNA pol  $\beta$  Polyclonal Antibody - Additional Information**

Gene ID 5423

**Other Names**

POLB; DNA polymerase beta

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**DNA pol  $\beta$  Polyclonal Antibody - Protein Information**

Name POLB

**Function**

Repair polymerase that plays a key role in base-excision repair (PubMed:<a href="http://www.uniprot.org/citations/10556592" target="\_blank">10556592</a>, PubMed:<a href="http://www.uniprot.org/citations/9207062" target="\_blank">9207062</a>, PubMed:<a href="http://www.uniprot.org/citations/9572863" target="\_blank">9572863</a>). 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:<a href="http://www.uniprot.org/citations/10556592" target="\_blank">10556592</a>, PubMed:<a href="http://www.uniprot.org/citations/17526740" target="\_blank">17526740</a>, PubMed:<a href="http://www.uniprot.org/citations/9556598" target="\_blank">9556598</a>, PubMed:<a href="http://www.uniprot.org/citations/9572863" target="\_blank">9572863</a>, PubMed:<a href="http://www.uniprot.org/citations/9614142" target="\_blank">9614142</a>). 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:<a href="http://www.uniprot.org/citations/9614142" target="\_blank">9614142</a>).

#### Cellular Location

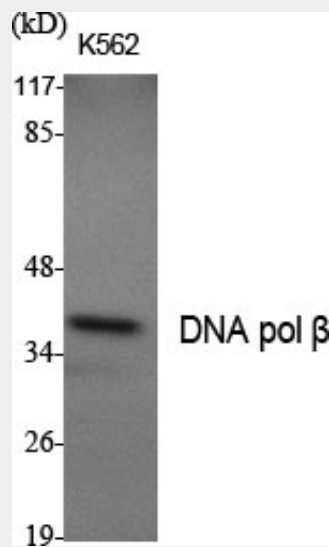
Nucleus. Cytoplasm. Note=Cytoplasmic in normal conditions. Translocates to the nucleus following DNA damage

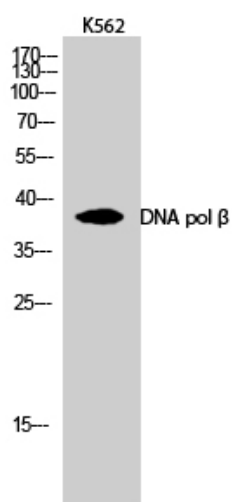
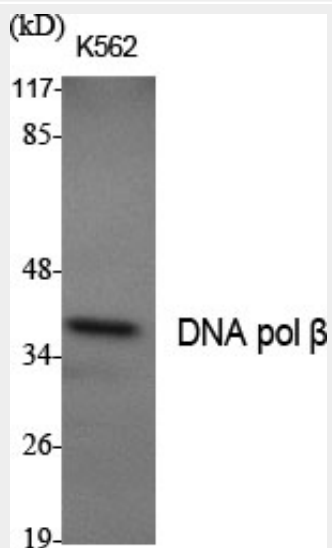
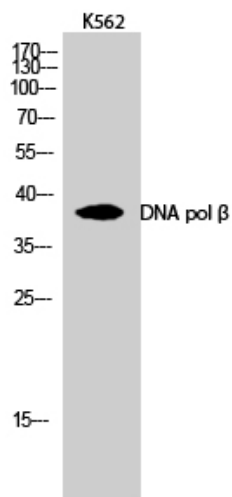
#### DNA pol $\beta$ Polyclonal Antibody - Protocols

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 pol $\beta$ Polyclonal Antibody - Images





**DNA pol  $\beta$  Polyclonal 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.