

**POLB / DNA Polymerase Beta Antibody (aa286-335)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS14748**

### Specification

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#### **POLB / DNA Polymerase Beta Antibody (aa286-335) - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P06746</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38kDa KDa

#### **POLB / DNA Polymerase Beta Antibody (aa286-335) - Additional Information**

Gene ID 5423

#### **Other Names**

DNA polymerase beta, 2.7.7.7, 4.2.99.-, POLB

#### **Target/Specificity**

DNA Polymerase beta Antibody detects endogenous levels of total DNA Polymerase beta protein.

#### **Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

#### **Precautions**

POLB / DNA Polymerase Beta Antibody (aa286-335) is for research use only and not for use in diagnostic or therapeutic procedures.

#### **POLB / DNA Polymerase Beta Antibody (aa286-335) - Protein Information**

Name POLB

#### **Function**

Repair polymerase that plays a key role in base-excision repair (PubMed: [10556592](http://www.uniprot.org/citations/10556592)), PubMed: [9207062](http://www.uniprot.org/citations/9207062), PubMed: [9572863](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/10556592), PubMed: [17526740](http://www.uniprot.org/citations/17526740), PubMed: [9556598](http://www.uniprot.org/citations/9556598), PubMed: [9572863](http://www.uniprot.org/citations/9572863), PubMed: [9614142](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

#### Volume

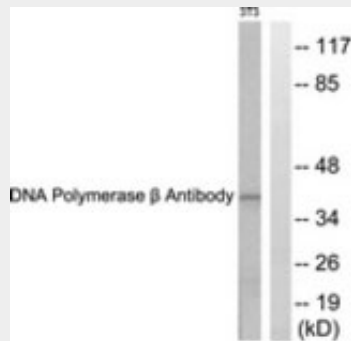
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### POLB / DNA Polymerase Beta Antibody (aa286-335) - Protocols

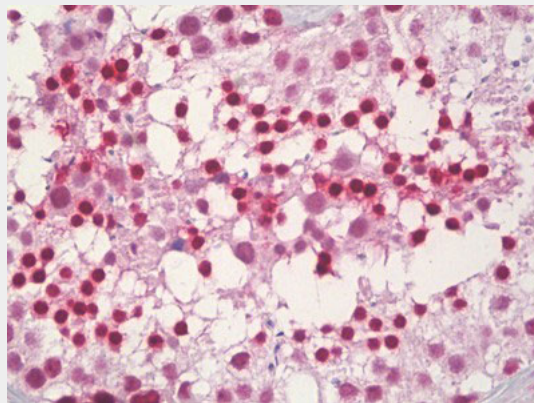
Provided below are standard protocols that you may find useful for product applications.

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

### POLB / DNA Polymerase Beta Antibody (aa286-335) - Images



Western blot of extracts from NIH-3T3 cells, using DNA Polymerase beta Antibody.



Anti-POLB / DNA Polymerase Beta antibody IHC of human testis.

**POLB / DNA Polymerase Beta Antibody (aa286-335) - 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.

**POLB / DNA Polymerase Beta Antibody (aa286-335) - 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.