

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

Application	WB, IHC
Primary Accession	P06746
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:9207062, PubMed:9572863, PubMed:10556592). 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:9572863, PubMed:9556598, PubMed:9614142, PubMed:10556592, PubMed:17526740).

target="_blank">17526740). 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

Volume

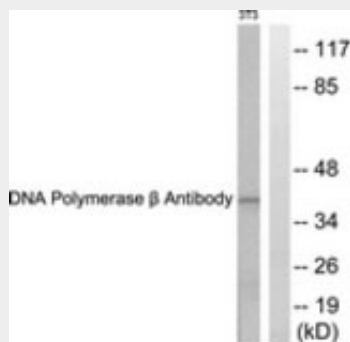
50 µl

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

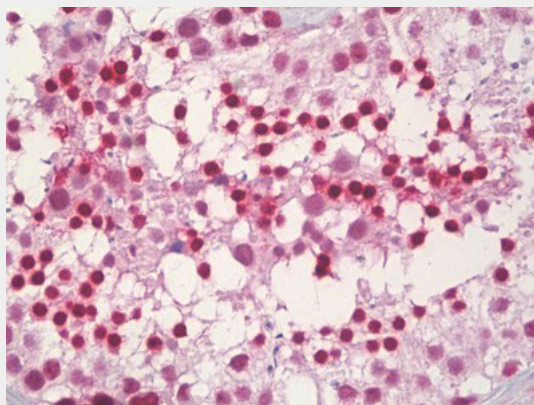
Provided below are standard protocols that you may find useful for product applications.

- [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.