

**Anti-DNA Polymerase beta Monoclonal Antibody**  
**Catalog # ABO14465****Specification**

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**Anti-DNA Polymerase beta Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC, IP
Primary Accession	<a href="#">P06746</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-DNA Polymerase beta Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

**Anti-DNA Polymerase beta Monoclonal Antibody - Additional Information**

**Gene ID** 5423

**Other Names**

DNA polymerase beta, 2.7.7.7, 5'-deoxyribose-phosphate lyase, 5'-dRP lyase, 4.2.99.-, AP lyase, 4.2.99.18, POLB

**Application Details**

WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:50

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human DNA Polymerase beta Repair polymerase. Conducts "gap-filling" DNA synthesis in a stepwise distributive fashion rather than in a processive fashion as for other DNA polymerases. Has a 5'-deoxyribose-5-phosphate lyase (dRP lyase) activity.

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-DNA Polymerase beta Monoclonal 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

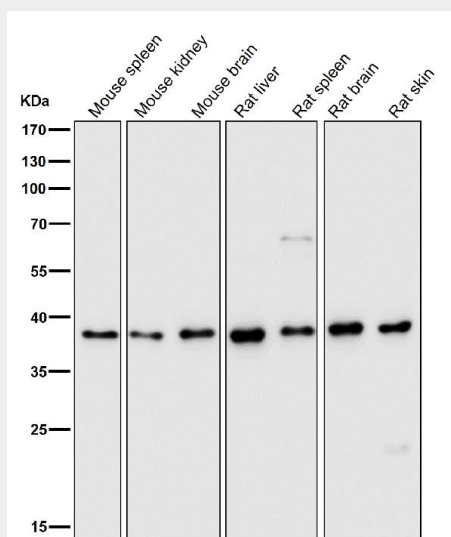
Nucleus. Cytoplasm. Note=Cytoplasmic in normal conditions. Translocates to the nucleus following DNA damage

## Anti-DNA Polymerase beta Monoclonal Antibody - Protocols

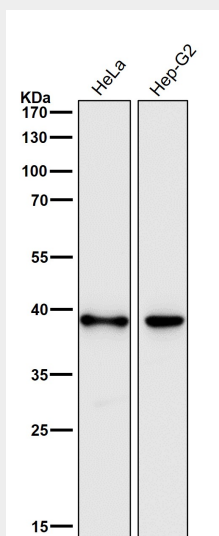
Provided below are standard protocols that you may find useful for product applications.

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

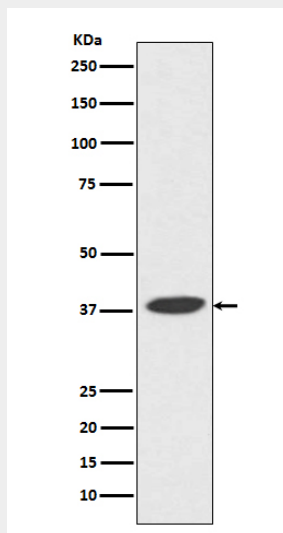
## Anti-DNA Polymerase beta Monoclonal Antibody - Images



All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



Western blot analysis of DNA Polymerase beta expression in A431 cell lysate.