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KD-Validated Anti-DNA Polymerase beta Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1682

Specification

KD-Validated Anti-DNA Polymerase beta Rabbit Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	P06746
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 38 kDa , o bserved, 38 kDa KDa**
Gene Name	**POLB**
Aliases	**POLB; DNA Polymerase Beta; Polymerase (DNA Directed), Beta; 5'-Deoxyribose-Phosphate Lyase; Polymerase (DNA) Beta; 5'-DRP Lyase; AP Lyase; DNA Polymerase Beta Subunit; DNA Pol Beta; EC 4.2.99.18; EC 4.2.99.-; EC 2.7.7.7**
Immunogen	**A synthesized peptide derived from human DNA polymerase beta**

KD-Validated Anti-DNA Polymerase beta Rabbit 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

KD-Validated Anti-DNA Polymerase beta Rabbit Monoclonal 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:<a href="http://www.uniprot.org/citations/17526740"

target="_blank">17526740, PubMed: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).

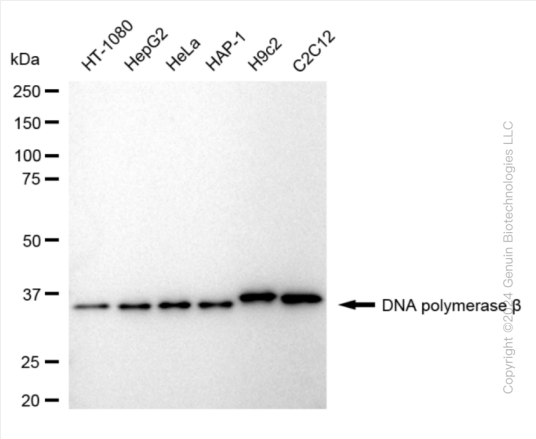
Cellular Location
Nucleus. Cytoplasm. Note=Cytoplasmic in normal conditions. Translocates to the nucleus following DNA damage

KD-Validated Anti-DNA Polymerase beta Rabbit 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 Cytomety
- Cell Culture

KD-Validated Anti-DNA Polymerase beta Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-DNA polymerase beta antibody (Cat#AGI1682). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-DNA polymerase beta antibody (Cat#AGI1682, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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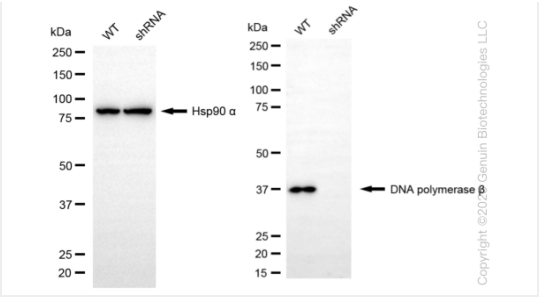

Western blotting analysis using anti-DNA Polymerase beta antibody (Cat#AGI1682). DNA Polymerase beta expression in wild type (WT) and DNA Polymerase beta(POLB) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-DNA Polymerase beta antibody (Cat#AGI1682, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.