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KD-Validated Anti-DNA Polymerase beta Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1682

Product Information

Application	WB
Primary Accession	P06746
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB1475
Calculated MW	38178
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

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

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:17526740, PubMed:8841119, 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

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