

ARG62468
anti-DNA polymerase beta antibody [18S]Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [18S] recognizes DNA polymerase beta
Tested Reactivity	Hu, Ms, Rat, Bov, Hm, Xenopus laevis
Tested Application	IHC, IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Clone	18S
Isotype	IgG1
Target Name	DNA polymerase beta
Species	Rat
Immunogen	Rat DNA polymerase beta full length protein (Rat)
Conjugation	Un-conjugated
Alternate Names	EC 4.2.99.-; EC 2.7.7.7; DNA polymerase beta

Application Instructions

Application Note	WB: 1-2 ug/ml IHC: 1/10-1/500 IP: 2 ug/ml * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
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Properties

Form	Liquid
Buffer	1X PBS buffer with sodium azide (less than 0.1%).
Preservative	sodium azide (less than 0.1%)
Concentration	2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Polb
Gene Full Name	polymerase (DNA directed), beta

Background	The protein encoded by this gene is a DNA polymerase involved in base excision and repair, also called gap-filling DNA synthesis. The encoded protein, acting as a monomer, is normally found in the cytoplasm, but it translocates to the nucleus upon DNA damage. Several transcript variants of this gene exist, but the full-length nature of only one has been described to date. [provided by RefSeq, Sep 2011]
Function	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. [UniProt]
Research Area	Gene Regulation antibody
Calculated Mw	38 kDa
PTM	Methylation by PRMT6 stimulates the polymerase activity by enhancing DNA binding and processivity. Ubiquitinated at Lys-41, Lys-61 and Lys-81: monoubiquitinated by HUWE1/ARF-BP1. Monoubiquitinated protein is then the target of STUB1/CHIP, which catalyzes polyubiquitination from monoubiquitin, leading to degradation by the proteasome. USP47 mediates the deubiquitination of monoubiquitinated protein, preventing polyubiquitination by STUB1/CHIP and its subsequent degradation.
Cellular Localization	Nucleus