

Rabbit DNA Polymerase beta Polyclonal Antibody | anti-POLB antibody

DNA Polymerase beta Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320795	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

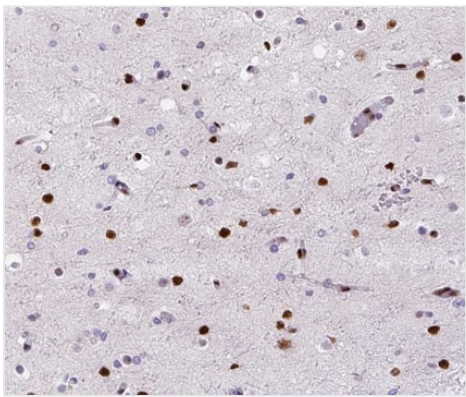
PRODUCT SYNONYMS

DNA Polymerase beta; Polyclonal Antibody; DNA Polymerase beta Antibody; DNA directed DNA polymerase beta; DNA pol beta; DNA polymerase beta; DNA polymerase beta subunit; DPOLB_HUMAN; MGC125976; Pol B; Pol beta; POLB; Polymerase (DNA directed) beta; anti-POLB antibody

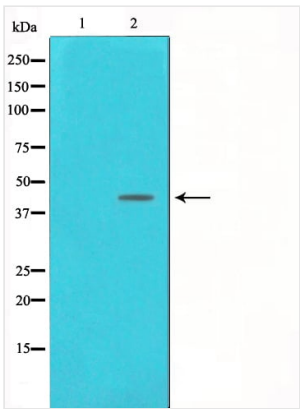
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	DNA Polymerase beta antibody detects endogenous levels of total DNA Polymerase beta
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	335
Applicable Applications for anti-POLB antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human DNA Polymerase beta
Subcellular Location	Nucleus, Cytoplasm
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

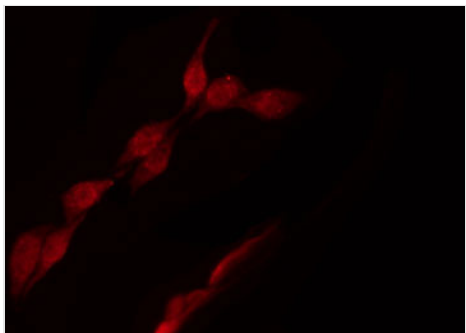
IMAGES



IHC (Immunohistochemistry)
AAA320795 at 1/200 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis on NIH-3T3 cell lysate using DNA Polymerase beta Antibody, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA320795 staining NIH-3T3 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-POLB antibody

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.

Subunit Structure: Monomer. Interacts with APEX1, HUWE1/ARF-BP1, STUB1/CHIP and USP47. Interacts with FAM168A (PubMed:25260657).

Post-translational Modifications: 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.

Similarity: Residues 239-252 form a flexible loop which appears to affect the polymerase fidelity. Belongs to the DNA polymerase type-X family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505931
NCBI GeneID	5423
NCBI Accession #	NP_002681.1

NCBI GenBank Nucleotide #	NM_002690.2
UniProt Accession #	P06746; Q3KP48; Q6FI34; B2RC78
Molecular Weight	Observed: 38 kDa Predicted: 39 kDa
NCBI Official Full Name	DNA polymerase beta
NCBI Official Synonym Full Names	DNA polymerase beta
NCBI Official Symbol	POLB
NCBI Protein Information	DNA polymerase beta
UniProt Protein Name	DNA polymerase beta
UniProt Gene Name	POLB

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/dna-polymerase-beta-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/320795>