

Rabbit POLI Polyclonal Antibody | anti-POLI antibody

POLI Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326471	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

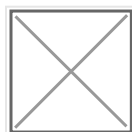
PRODUCT SYNONYMS

POLI; Polyclonal Antibody; POLI Antibody; DNA polymerase iota; Eta 2; Eta2; POLI_HUMAN; Polymerase (DNA directed) iota; RAD 30B; RAD30 homolog B; RAD30; S. cerevisiae; homolog of; RAD30B; RAD30B; anti-POLI antibody

PRODUCT SPECIFICATIONS

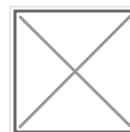
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	POLI antibody detects endogenous levels of total POLI
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	740
Applicable Applications for anti-POLI antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human POLI
Subcellular Location	Nucleus. Accumulates at replication forks after DNA damage.
Tissue Specificity	Ubiquitous. Highly expressed in testis.
Predicted Cross Reactivity	Rabbit
Similarity	Rabbit (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA326471 staining HepG2 cells 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) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326471 at 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample 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 of MCF7 cell lysate, using POLI Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-POLI antibody	Description: Mammalian Pol iota owns an unusual combination of properties: it is stimulated by Mn²⁺ ions, can bypass some DNA lesions and misincorporates "G"•opposite template "T"• more frequently than incorporates the correct "A."• [PMID:21304950] It also was shown to possess dRP lyase activity. In addition, Pol iota is much more efficient in the presence of Mn²⁺ in comparison to Mg²⁺. [PMID: 17609217]. It has been proposed that POLI involves in immunoglobulin somatic hypermutation (SHM), bypass of deaminated cytosines, several adducts of the purine bases. DNA strand crosslinks and is involved in DNA repair under oxidative stress. [PMID:15199127] Function: Error-prone DNA polymerase specifically involved in DNA repair. Plays an important role in translesion synthesis, where the normal high-fidelity DNA polymerases cannot proceed and DNA synthesis stalls. Favors Hoogsteen base-pairing in the active site. Inserts the correct base with high-fidelity opposite an adenosine template. Exhibits low fidelity and efficiency opposite a thymidine template, where it will preferentially insert guanosine. May play a role in hypermutation of immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but may not have lyase activity. Subunit Structure: Interacts with REV1 (By similarity). Interacts with POLH. Similarity: The catalytic core consists of fingers, palm and thumb subdomains, but the fingers and thumb subdomains are much smaller than in high-fidelity polymerases; residues from five sequence motifs of the Y-family cluster around an active site cleft that can accommodate DNA and nucleotide substrates with relaxed geometric constraints, with consequently higher rates of misincorporation and low processivity. Belongs to the DNA polymerase type-Y family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	154350220
NCBI GeneID	11201
NCBI Accession #	NP_009126.2
NCBI GenBank Nucleotide #	NM_007195.2
UniProt Accession #	Q9UNA4; Q8N590; Q9H0S1; Q9NYH6
Molecular Weight	Observed: 80 kDa Predicted: 84 kDa
NCBI Official Full Name	DNA polymerase iota isoform a (long)
NCBI Official Synonym Full Names	DNA polymerase iota
NCBI Official Symbol	POLI
NCBI Official Synonym Symbols	eta2; RAD30B; RAD3OB
NCBI Protein Information	DNA polymerase iota
UniProt Protein Name	DNA polymerase iota
UniProt Gene Name	POLI
UniProt Synonym Gene Names	RAD30B

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.