

DNA pol ι rabbit pAb**Cat#: orb767489 (Manual)**

For research use only. Not intended for diagnostic use.

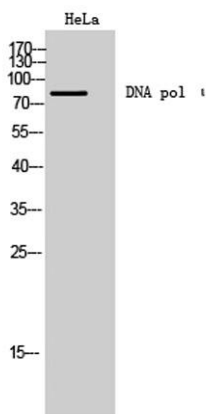
Product Name	DNA pol ι rabbit pAb
Host species	Rabbit
Applications	WB;ELISA
Species Cross-Reactivity	Human;Rat;Mouse;
Recommended dilutions	Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.
Immunogen	The antiserum was produced against synthesized peptide derived from human POLI. AA range:641-690
Specificity	DNA pol ι Polyclonal Antibody detects endogenous levels of DNA pol ι protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	DNA polymerase iota
Gene Name	POLI
Cellular localization	Nucleus . Binding to ubiquitin mediates localization to replication forks after UV-induced DNA damage. .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal

Explore. Bioreagents.

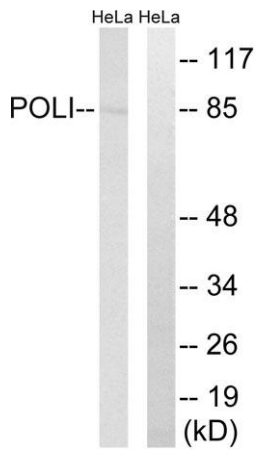
Concentration	1 mg/ml
Observed band	85kD
Human Gene ID	11201
Human Swiss-Prot Number	Q9UNA4
Alternative Names	POLI; RAD30B; DNA polymerase iota; Eta2; RAD30 homolog B

Background

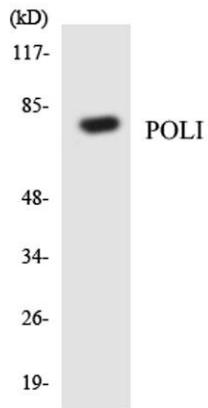
catalytic activity:Deoxynucleoside triphosphate + DNA(n) = diphosphate + DNA(n+1).
cofactor:Magnesium.
domain:The catalytic core consists of fingers, palm and thumb subdomains, but the fingers and thumb subdomains are much smaller than in high-fidelity polymerases; residues from five sequence motifs 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.
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.
similarity:Belongs to the DNA polymerase type-Y family.
similarity:Contains 1 umuC domain.
subcellular location:Accumulates at replication forks after DNA damage.
subunit:Binds REV1L (By similarity). Binds POLH.
tissue specificity:Ubiquitous. Highly expressed in testis.



Western Blot analysis of HeLa cells using DNA pol ι Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).



Western blot analysis of lysates from HeLa cells, using POLI Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HeLa cells using POLI antibody.