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Product datasheet for AP06662PU-S

DNA polymerase alpha (POLA1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	**Western blot**: 1/500-1/1000.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 81-130 of Human DNA pol α.
Specificity:	This antibody detects endogenous levels of DNA pol α protein. (region surrounding Lys111)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~180 kDa
Gene Name:	polymerase (DNA) alpha 1, catalytic subunit
Database Link:	Entrez Gene 5422 Human P09884

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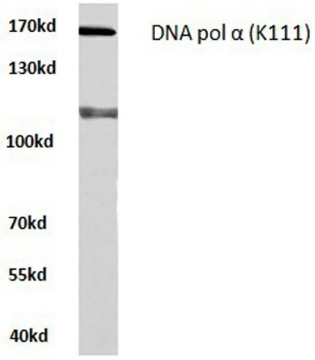
Background: DNA replication, recombination and repair, all of which are necessary for genomic stability, require the presence of exonucleases. In DNA replication, these enzymes are involved in the processing of Okazaki fragments, whereas in DNA repair they function to excise damaged DNA fragments and correct recombinational mismatches. These exonucleases include the family of DNA polymerases. DNA pol α, β, δ and ε are involved in DNA replication and repair. DNA pol δ and DNA pol ε are multisubunit enzymes, with DNA pol δ consisting of two subunits: p125, which interacts with the sliding DNA clamp protein PCNA; and p50. The nuclear-encoded DNA pol γ is the only DNA polymerase required for the replication of the mitochondrial DNA. DNA pol ζ is ubiquitously expressed in various tissues and mediates the cellular mechanism of damage-induced mutagenesis. DNA pol θ is a DNA polymerase-helicase that binds ATP and is involved in the repair of interstrand crosslinks.

Synonyms: DNA polymerase alpha catalytic subunit

Protein Families: Druggable Genome

Protein Pathways: DNA replication, Metabolic pathways, Purine metabolism, Pyrimidine metabolism

Product images:



Western blot (WB) analysis of DNA pol a antibody in extracts from A549 cells.