

POLD1 Rabbit mAb

Catalog No: #52046

Package Size: #52046-1 50ul #52046-2 100ul

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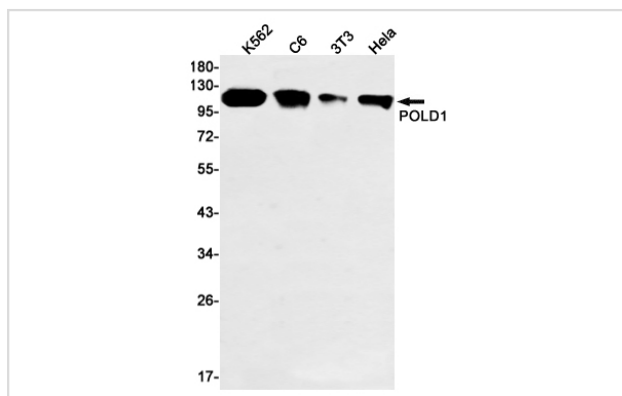
Description

Product Name	POLD1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	S05-3H1
Isotype	Rabbit IgG
Purification	Affinity Purified
Applications	WB
Species Reactivity	Human,Mouse,Rat
Immunogen Description	A synthetic peptide of human DNA Polymerase delta, catalytic subunit
Conjugates	Unconjugated
Modification	Unmodification
Other Names	CDC2; CRCS10; MDPL; POLD; POLD1;
Accession No.	Swiss-Prot:P28340GenelD:5424
Uniprot	P28340
GenelD	5424
Calculated MW	Calculated MW: 124 kDa; Observed MW: 124 kDa
Concentration	0.3 mg/ml
Formulation	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Application Details

WB: 1/1000-1/5000;

Images



Western blot detection of POLD1 in K562,C6,3T3,Hela cell lysates using POLD1 Rabbit mAb(1:1000 diluted).Predicted band size:124kDa.Observed band size:124kDa.

Background

As the catalytic component of the trimeric (Pol-delta3 complex) and tetrameric DNA polymerase delta complexes (Pol-delta4 complex), plays a crucial role in high fidelity genome replication, including in lagging strand synthesis, and repair. Exhibits both DNA polymerase and 3'- to 5'-exonuclease activities (PubMed:16510448, PubMed:19074196, PubMed:20334433, PubMed:24035200, PubMed:24022480).

Requires the presence of accessory proteins POLD2, POLD3 and POLD4 for full activity. Depending upon the absence (Pol-delta3) or the presence of POLD4 (Pol-delta4), displays differences in catalytic activity. Most notably, expresses higher proofreading activity in the context of Pol-delta3 compared with that of Pol-delta4 (PubMed:19074196, PubMed:20334433).

Although both Pol-delta3 and Pol-delta4 process Okazaki fragments in vitro, Pol-delta3 may be better suited to fulfill this task, exhibiting near-absence of strand displacement activity compared to Pol-delta4 and stalling on encounter with the 5'-blocking oligonucleotides. Pol-delta3 idling process may avoid the formation of a gap, while maintaining a nick that can be readily ligated (PubMed:24035200).

Note: This product is for in vitro research use only