

产品名称: POLD1 (19G10) Rabbit Monoclonal Antibody
产品货号: AMRe16347



产品概述 (Summary)

产品名称 (Production Name)	POLD1 (19G10) Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,FC
种属反应性 (Reactivity)	Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% protective protein.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	POLD1
别名 (Alternative Names)	CDC2; CRCS10; MDPL; POLD; POLD1;
基因 ID (Gene ID)	5424.0
蛋白 ID (SwissProt ID)	P28340.A synthetic peptide of human DNA Polymerase delta, catalytic subunit

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:1000-1:5000,IHC 1:20-1:50,ICC/IF 1:20-1:50,FC 1:50-1:100
蛋白分子量 (Molecular Weight)	124kDa

研究背景 (Background)

Possesses two enzymatic activities: DNA synthesis (polymerase) and an exonucleolytic activity that degrades single

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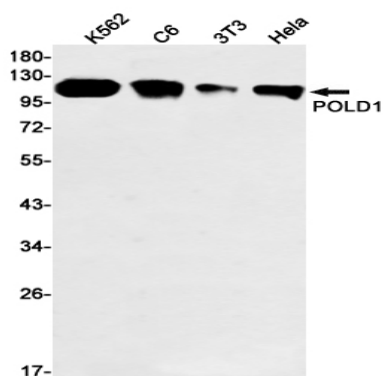
stranded DNA in the 3'- to 5'-direction. Required with its accessory proteins (proliferating cell nuclear antigen (PCNA) and replication factor C (RFC) or activator 1) for leading strand synthesis. Also involved in completing Okazaki fragments initiated by the DNA polymerase alpha/primase complex. As 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](http://www.uniprot.org/citations/16510448), PubMed: [19074196](http://www.uniprot.org/citations/19074196), PubMed: [20334433](http://www.uniprot.org/citations/20334433), PubMed: [24035200](http://www.uniprot.org/citations/24035200), PubMed: [24022480](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/19074196), PubMed: [20334433](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/24035200)). Along with DNA polymerase kappa, DNA polymerase delta carries out approximately half of nucleotide excision repair (NER) synthesis following UV irradiation (PubMed: [20227374](http://www.uniprot.org/citations/20227374)). Under conditions of DNA replication stress, in the presence of POLD3 and POLD4, may catalyze the repair of broken replication forks through break-induced replication (BIR) (PubMed: [24310611](http://www.uniprot.org/citations/24310611)). Involved in the translesion synthesis (TLS) of templates carrying O6-methylguanine, 8oxoG or abasic sites (PubMed: [19074196](http://www.uniprot.org/citations/19074196), PubMed: [24191025](http://www.uniprot.org/citations/24191025)).

研究领域 (Research Area)

Purine metabolism;Pyrimidine metabolism;DNA replication;Base excision repair;Nucleotide excision repair;Mismatch repair;Homologous recombination;

图片 (Image Data)

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Western blot detection of POLD1 in K562,C6,3T3,HeLa cell lysates using POLD1 antibody(1:1000 diluted).

注意事项 (Note)

For research use only .