

POLD1 recombinant protein

Recombinant Human POLD1 protein

CATALOG #
AAA119947

HOST
E Coli

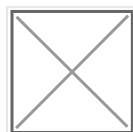
PRODUCT SYNONYMS

POLD1; Recombinant Human POLD1 protein; DNA polymerase delta catalytic subunit; 3'-5' exodeoxyribonuclease; DNA polymerase subunit delta p125; POLD1 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from PBS pH 7.4, 0.2% NLS, 5% Trehalose, 5% Mannose, 1mM EDTA, 4% trehalose, 1% mannitol
Species	Homo sapiens (Human)
Protein Construction	A DNA sequence encoding the human POLD1 (Met41-Phe254) was fused with GST tag
Reconstitution	Reconstitute in sterile water for a stock solution.
Preparation and Storage	Store at 2 to 8 degree C for one week. Store at -20 to -80 degree C for twelve months from the date of receipt. Use a manual defrost freezer and avoid repeated freeze thaw cycles. In general, proteins are provided as lyophilized powder/frozen liquid. They are shipped out with dry ice/blue ice unless customers require otherwise.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for POLD1 recombinant protein

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. 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. 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. Along with DNA polymerase kappa, DNA polymerase delta carries out approximately half of nucleotide excision repair (NER) synthesis following UV irradiation. 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). Involved in the translesion synthesis (TLS) of templates carrying O6-methylguanine, 8oxoG or abasic sites.

Product Categories/Family for POLD1 recombinant protein

Protein

NCBI AND UNIPROT INFORMATION

NCBI GI #	379030588
NCBI GeneID	5424
NCBI Accession #	NP_001243778.1
NCBI GenBank Nucleotide #	NM_001256849.1
UniProt Accession #	P28340; Q8NER3; Q96H98
Molecular Weight	123,631 Da
NCBI Official Full Name	DNA polymerase delta catalytic subunit
NCBI Official Synonym Full Names	polymerase (DNA directed), delta 1, catalytic subunit
NCBI Official Symbol	POLD1
NCBI Official Synonym Symbols	CDC2; POLD; CRCS10
NCBI Protein Information	DNA polymerase delta catalytic subunit; CDC2 homolog; DNA polymerase subunit delta p125; polymerase (DNA directed), delta 1, catalytic subunit 125kDa
UniProt Protein Name	DNA polymerase delta catalytic subunit
UniProt Gene Name	POLD1
UniProt Synonym Gene Names	POLD
UniProt Entry Name	DPOD1_HUMAN

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/pold1-recombinant-protein-e-coli/119947>