

Datasheet for ABIN7563416
POLD1 Protein (AA 1-1105) (His tag)



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Overview

| | |
|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | POLD1 |
| Protein Characteristics: | AA 1-1105 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This POLD1 protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS) |

Product Details

| | |
|-----------|--|
| Purpose: | Custom-made recombinat Pold1 Protein expressed in mammalian cells. |
| Sequence: | MDCKRRQGPG PGVPPKRARG HLWDEDEPSP SQFEANLALL EEIEAENRLQ EAEELQLPP EGTVGGQFST ADIDPRWRRP TLRALDPSTE PLIFQLEID HYVGSAPPLP EGPLPSRNSV PILRAFGVTD EGFSVCCHIQ GFAPYFYTPA PPGFGAEHLS ELQQELNAAI SRDQRGGKEL SGPAVLAIEL CSRESMFGYH GHGSPSPFLRI TLALPRLMAP ARRLLEQGVR VPGLGTSPFA PYEANVDFEI RFMVDADIVG CNWLELPAGK YVRAEKKAT LCQLEVDVLW SDVISHPPEG QWQRIAPLRV LSFIDIECAGR KGIFPEPERD PVIQICSLGL RWGEPEPFLR LALTLRPCAP ILGAKVQSYE REEDLLQAWA DFILAMDPDV ITGYNIQNFD LPYLISRAQA LKVDRFPFLG RVTGLRSNIR DSSFQSRQVG RRDSKVISMV GRVQMDMLQV LLREHKLRYS TLNAVSFHFL GEQKEDVQHS IITDLQNGNE QTRRRLAVYC LKDAFLPLRL LERLMVLVNN VEMARVTGVP LGYLLTRGQQ VKVVSQLLRQ AMRQGLLMPV VKTEGSEDYT GATVIEPLKG YYDVPIATLD FSSLYPSIMM AHNLCYTTLL RPGAAQKLGL KPDEFIKTPT GDEFVKSSVR KGLLPQILEN |

Product Details

LLSARKRAKA ELAQETDPLR RQVLDGRQLA LKVSANSVYG FTGAQVGKLP CLEISQSVTG
FGRQMIKTK QLVESKYTVE NGYDANAKVV YGDTDSVMCR FGVSSVAEAM SLGREANWV
SSHFPSPIRL EFEKVYFPYL LISKKRYAGL LFSSRSDAHD KMDCKGLEAV RRDNCPLVAN
LVTSSLRRIL VDRDPDGAVA HAKDVISDLL CNRIDISQLV ITKELTRAAA DYAGKQAHVE
LAERMRKRDG GSAPSLGDRV PYVIIGAAKG VAAVMKSEDP LRVLEHSLPI DTQYYLEQQL
AKPLLRIFEP ILGEGRAESV LLRGDHTRCK TVLTSKVGGL LAFTKRRNCC IGCERSVIDHQ
GAVCKFCQPR ESELYQKEVS HLNAL EERFS RLWTQCQRCQ GSLHEDVICT SRDCPIFYMR
KKVRKDLEDQ ERLQRFQPP GPEAW **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

POLD1

Alternative Name:

Pold1 ([POLD1 Products](#))

Background:

DNA polymerase delta catalytic subunit (EC 2.7.7.7) (3'-5' exodeoxyribonuclease) (EC 3.1.11.-),FUNCTION: 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

Target Details

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). Involved in the translesion synthesis (TLS) of templates carrying O6-methylguanine, 8oxoG or abasic sites. {ECO:0000250|UniProtKB:P28340}.

Molecular Weight: 123.8 kDa

UniProt: [P52431](#)

Pathways: [Telomere Maintenance](#), [DNA Damage Repair](#), [DNA Replication](#), [Chromatin Binding](#), [Synthesis of DNA](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Handling

Expiry Date: 12 months