

Datasheet for ABIN3092192

POLA1 Protein (AA 1-1462) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	POLA1
Protein Characteristics:	AA 1-1462
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLA1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MAPVHGDDSL SDGSFVSSR ARREKSKKG RQEALERLKK AKAGEKYKYE VEDFTGVYEE VDEEQYSKLV QARQDDDWIV DDDGIGYVED GREIFDDDL DDALDADEKG KDGKARNKDK RNVKKLAVTK PNNIKSMFIA CAGKKTADKA VDLSKDGLLG DILQDLNTET PQITPPPVMI LKKKRSIGAS PNPFSVHTAT AVPSGKIASP VSRKEPPLTP VPLKRAEFAG DDVQVESTEE EQESGAMEFE DGDFDEPMEV EEVDLEPMAA KAWDKESPA EEVKQADSG KGTVSYLGSF LPDVSCWDID QEGDSSFVSQ EVQVDSSHLP LVKGADEEQV FHFYWLDAYE DQYNQPGVVF LFGKVVIESA ETHVSCCMV KNIERTLYFL PREMIDLNT GKETGTPISM KDVEEFDEK IATKYKIMKF KSKPVEKNYA FEIPDVPEKS EYLEVKYSAE MPQLPQDLKG ETFSHVFGTN TSSLELFLMN RKIKGPCWLE VKSPQLLNQP VSWCKVEAMA LKPDLVNVIK DVSPPLVVM AFSMKTMQNA KNHQNEIAM AALVHHSFAL DKAAPKPPFQ SHFCVVSFKPK DCIFPYAFKE VIEKKNVKVE VAATERTLLG FFLAKVHKID PDIIVGHNIY GFELEVLLQR INVCKAPHWS KIGRLKRSNM PKLGGRSGFG ERNATCGRMI CDVEISAKEL IRCKSYHLSE LVQQLKTER
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VVIPMENIQN MYSESSQLLY LLEHTWKDAK FILQIMCELN VLPLALQITN IAGNIMSRTL
MGGRSERNEF LLLHAFYENN YIVPDKQIFR KPQQKLGDED EEIDGDTNKY KKGRKKAAYA
GGLVLDPKVG FYDKFILLLD FNSLYPSIIQ EFNICFTTVQ RVASEAQKVT EDGEQEIQIE
LPDPSLEMGI LPREIRKLVE RRKQVKQLMK QQDLNPDIL QYDIRQKALK LTANSMYGCL
GFSYSRFYAK PLAALVTYKG REILMHTKEM VQKMNLEVIY GDTDSIMINT NSTNLEEVFK
LGNKVKSEVN KLYKLEIDI DGVFKSLLLL KKKKYAALVV EPTSDGNYVT KQELKGLDIV
RRDWCDLAKD TGNFVIGQIL SDQSRDTIVE NIQKRLIEIG ENVLNGSVPV SQFEINKALT
KDPQDYPDKK SLPHVHVALW INSQGGRKVK AGDTVSYVIC QDGSNLTASQ RAYAPEQLQK
QDNLTIDTQY YLAQQIHPVV ARICEPIDGI DAVLIATWLG LDPTQFRVHH YHKDEENDAL
LGGPAQLTDE EKYRDCERFK CPCPTCGTEN IYDNVFDGSG TDMEPSLYRC SNIDCKASPL
TFTVQLSNKL IMDIRRFIKK YYDGWLICEE PTCRNTRHL PLQFSRTGPL CPACMKATLQ
PEYSDKSLYT QLCFYRYIFD AECALEKLT DHEKDKLKKQ FFTPKVLQDY RKLKNTAEQF
LSRSGYSEVN LSKLFAGCAV KS

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human POLA1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use

Product Details

the ExPASy's protParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	POLA1
Alternative Name:	POLA1 (POLA1 Products)
Background:	Plays an essential role in the initiation of DNA replication. During the S phase of the cell cycle, the DNA polymerase alpha complex (composed of a catalytic subunit POLA1/p180, a regulatory subunit POLA2/p70 and two primase subunits PRIM1/p49 and PRIM2/p58) is recruited to DNA at the replicative forks via direct interactions with MCM10 and WDHD1. The primase subunit of the polymerase alpha complex initiates DNA synthesis by oligomerising short RNA primers on both leading and lagging strands. These primers are initially extended by the polymerase alpha catalytic subunit and subsequently transferred to polymerase delta and polymerase epsilon for processive synthesis on the lagging and leading strand, respectively. The reason this transfer occurs is because the polymerase alpha has limited processivity and lacks intrinsic 3' exonuclease activity for proofreading error, and therefore is not well suited for replicating long complexes. {ECO:0000269 PubMed:9518481}.
Molecular Weight:	166.9 kDa Including tag.
UniProt:	P09884
Pathways:	SARS-CoV-2 Protein Interactome

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.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process