Datasheet for ABIN7553726

POLA1 Protein (AA 1-1462) (His tag)

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Overview

Quantity:	1 mg
Target:	POLA1
Protein Characteristics:	AA 1-1462
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POLA1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant POLA1 Protein expressed in mammalian cells.
Sequence:	MAPVHGDDSL SDSGSFVSSR ARREKKSKKG RQEALERLKK AKAGEKYKYE VEDFTGVYEE VDEEQYSKLV QARQDDDWIV DDDGIGYVED GREIFDDDLE DDALDADEKG KDGKARNKDK RNVKKLAVTK PNNIKSMFIA CAGKKTADKA VDLSKDGLLG DILQDLNTET PQITPPPVMI LKKKRSIGAS PNPFSVHTAT AVPSGKIASP VSRKEPPLTP VPLKRAEFAG DDVQVESTEE EQESGAMEFE DGDFDEPMEV EEVDLEPMAA KAWDKESEPA EEVKQEADSG KGTVSYLGSF LPDVSCWDID QEGDSSFSVQ EVQVDSSHLP LVKGADEEQV FHFYWLDAYE DQYNQPGVVF LFGKVWIESA ETHVSCCVMV KNIERTLYFL PREMKIDLNT GKETGTPISM KDVYEEFDEK IATKYKIMKF KSKPVEKNYA FEIPDVPEKS EYLEVKYSAE MPQLPQDLKG ETFSHVFGTN TSSLELFLMN RKIKGPCWLE VKSPQLLNQP VSWCKVEAMA LKPDLVNVIK DVSPPPLVVM AFSMKTMQNA KNHQNEIIAM AALVHHSFAL DKAAPKPPFQ SHFCVVSKPK DCIFPYAFKE VIEKKNVKVE VAATERTLLG FFLAKVHKID PDIIVGHNIY GFELEVLLQR INVCKAPHWS KIGRLKRSNM PKLGGRSGFG ERNATCGRMI CDVEISAKEL IRCKSYHLSE LVQQILKTER

	VVIPMENIQN MYSESSQLLY LLEHTWKDAK FILQIMCELN VLPLALQITN IAGNIMSRTL MGGRSERNEF LLLHAFYENN YIVPDKQIFR KPQQKLGDED EEIDGDTNKY KKGRKKAAYA GGLVLDPKVG FYDKFILLLD FNSLYPSIIQ EFNICFTTVQ RVASEAQKVT EDGEQEQIPE LPDPSLEMGI LPREIRKLVE RRKQVKQLMK QQDLNPDLIL QYDIRQKALK LTANSMYGCL GFSYSRFYAK PLAALVTYKG REILMHTKEM VQKMNLEVIY GDTDSIMINT NSTNLEEVFK LGNKVKSEVN KLYKLLEIDI 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 PTCRNRTRHL PLQFSRTGPL CPACMKATLQ PEYSDKSLYT QLCFYRYIFD AECALEKLTT DHEKDKLKKQ FFTPKVLQDY RKLKNTAEQF LSRSGYSEVN LSKLFAGCAV KS **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	POLA1
Alternative Name:	POLA1 (POLA1 Products)
Background:	DNA polymerase alpha catalytic subunit (EC 2.7.7.7) (DNA polymerase alpha catalytic subunit p180),FUNCTION: Catalytic subunit of the DNA polymerase alpha complex (also known as the alpha DNA polymerase-primase complex) which plays an essential role in the initiation of DNA synthesis. During the S phase of the cell cycle, the DNA polymerase alpha complex (composed of a catalytic subunit POLA1, a regulatory subunit POLA2 and two primase subunits PRIM1 and PRIM2) 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. In the cytosol, responsible for a substantial proportion of the physiological concentration of cytosolic RNA:DNA hybrids, which are necessary to prevent spontaneous activation of type I interferon responses (PubMed:27019227). {ECO:0000269|PubMed:26975377, ECO:0000269|PubMed:27019227, ECO:0000269|PubMed:31006512, ECO:0000269|PubMed:9518481}.
Molecular Weight:	165.9 kDa
UniProt:	P09884
Pathways:	SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	We expect the protein to work for functional studies. 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.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months