Datasheet for ABIN7550985

PRIM1 Protein (AA 1-420) (His tag)

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Overview

Quantity:	1 mg
Target:	PRIM1
Protein Characteristics:	AA 1-420
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PRIM1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat PRIM1 Protein expressed in mammalien cells.
Sequence:	METFDPTELP ELLKLYYRRL FPYSQYYRWL NYGGVIKNYF QHREFSFTLK DDIYIRYQSF NNQSDLEKEM QKMNPYKIDI GAVYSHRPNQ HNTVKLGAFQ AQEKELVFDI DMTDYDDVRR CCSSADICPK CWTLMTMAIR IIDRALKEDF GFKHRLWVYS GRRGVHCWVC DESVRKLSSA VRSGIVEYLS LVKGGQDVKK KVHLSEKIHP FIRKSINIIK KYFEEYALVN QDILENKESW DKILALVPET IHDELQQSFQ KSHNSLQRWE HLKKVASRYQ NNIKNDKYGP WLEWEIMLQY CFPRLDINVS KGINHLLKSP FSVHPKTGRI SVPIDLQKVD QFDPFTVPTI SFICRELDAI STNEEEKEEN EAESDVKHRT RDYKKTSLAP YVKVFEHFLE NLDKSRKGEL LKKSDLQKDF **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:

Product Details

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalien 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:	PRIM1
Alternative Name:	PRIM1 (PRIM1 Products)
Background:	DNA primase small subunit (EC 2.7.7.102) (DNA primase 49 kDa subunit) (p49),FUNCTION: Catalytic subunit of the DNA primase complex and component of the DNA polymerase alpha complex (also known as the alpha DNA polymerase-primase complex - primosome/replisome) which play an essential role in the initiation of DNA synthesis (PubMed:9268648, PubMed:9705292, PubMed:17893144, PubMed:24043831, PubMed:26975377, PubMed:25550159, PubMed:31479243, PubMed:33060134). During the S phase of the cell cycle, the DNA polymerase alpha complex (composed of a catalytic subunit POLA1, an accessory subunit POLA2 and two primase subunits, the catalytic subunit PRIM1 and the regulatory subunit PRIM2) is recruited to DNA at the replicative forks via direct interactions with MCM10 and WDHD1 (By similarity). The primase subunit of the polymerase alpha complex initiates DNA synthesis by oligomerising short RNA primers on both leading and lagging strands (PubMed:17893144). 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 (By similarity). In the

Target Details

	primase complex, both subunits are necessary for the initial di-nucleotide formation, but the extension of the primer depends only on the catalytic subunit (PubMed:17893144). Synthesizes 9-mer RNA primers (also known as the 'unit length' RNA primers). Incorporates only ribonucleotides in the presence of ribo- and deoxy-nucleotide triphosphates (rNTPs, dNTPs) (PubMed:26975377). Requires template thymine or cytidine to start the RNA primer synthesis, with an adenine or guanine at its 5'-end (PubMed:25550159, PubMed:26975377). Binds single stranded DNA (By similarity). {ECO:0000250|UniProtKB:P09884, ECO:0000250|UniProtKB:P20664, ECO:0000269|PubMed:17893144, ECO:0000269|PubMed:25550159, ECO:0000269|PubMed:26975377, ECO:0000269|PubMed:33060134, ECO:0000269|PubMed:9268648, ECO:0000269|PubMed:9705292}.
Molecular Weight:	49.9 kDa
UniProt:	P49642
Pathways:	Telomere Maintenance, Mitotic G1-G1/S Phases, DNA Replication, Synthesis of DNA, 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.
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.
Expiry Date:	12 months

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