Datasheet for ABIN3086338

PRIM2 Protein (AA 1-509) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PRIM2
Protein Characteristics:	AA 1-509
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PRIM2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MEFSGRKWRK LRLAGDQRNA SYPHCLQFYL QPPSENISLI EFENLAIDRV KLLKSVENLG VSYVKGTEQY QSKLESELRK LKFSYRENLE DEYEPRRRDH ISHFILRLAY CQSEELRRWF IQQEMDLLRF RFSILPKDKI QDFLKDSQLQ FEAISDEEKT LREQEIVASS PSLSGLKLGF ESIYKIPFAD ALDLFRGRKV YLEDGFAYVP LKDIVAIILN EFRAKLSKAL ALTARSLPAV QSDERLQPLL NHLSHSYTGQ DYSTQGNVGK ISLDQIDLLS TKSFPPCMRQ LHKALRENHH LRHGGRMQYG LFLKGIGLTL EQALQFWKQE FIKGKMDPDK FDKGYSYNIR HSFGKEGKRT DYTPFSCLKI ILSNPPSQGD YHGCPFRHSD PELLKQKLQS YKISPGGISQ ILDLVKGTHY QVACQKYFEM IHNVDDCGFS LNHPNQFFCE SQRILNGGKD IKKEPIQPET PQPKPSVQKT KDASSALASL NSSLEMDMEG LEDYFSEDS **Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • 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. 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. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	PRIM2
Alternative Name:	PRIM2 (PRIM2 Products)
Background:	DNA primase large subunit (DNA primase 58 kDa subunit) (p58),FUNCTION: Regulatory subunit of the DNA primase complex and component of the DNA polymerase alpha complex (also known as the alpha DNA polymerase-primase complex) which play an essential role in the initiation of DNA synthesis (PubMed:9705292, PubMed:17893144, PubMed:25550159, PubMed:26975377). 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 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, PubMed:25550159). Binds RNA:DNA duplex and coordinates the catalytic activities of PRIM1 and POLA2 during primase-to-polymerase switch. {ECO:0000250|UniProtKB:P09884, ECO:0000250|UniProtKB:P33610, ECO:0000269|PubMed:17893144, ECO:0000269|PubMed:25550159, ECO:0000269|PubMed:26975377, ECO:0000269|PubMed:9705292}.
Molecular Weight:	58.8 kDa
UniProt:	P49643
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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational

Application Details

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Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months