Datasheet for ABIN3137100

SUN1 Protein (AA 1-913) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SUN1
Protein Characteristics:	AA 1-913
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SUN1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MDFSRLHTYT PPQCVPENTG YTYALSSSYS SDALDFETEH KLEPVFDSPR MSRRSLRLVT TASYSSGDSQ AIDSHISTSR ATPAKGRETR TVKQRRSASK PAFSINHLSG KGLSSSTSHD SSCSLRSATV LRHPVLDESL IREQTKVDHF WGLDDDGDLK GGNKAATQGN GELAAEVASS NGYTCRDCRM LSARTDALTA HSAIHGTTSR VYSRDRTLKP RGVSFYLDRT LWLAKSTSSS FASFIVQLFQ VVLMKLNFET YKLKGYESRA YESQSYETKS HESEAHLGHC GRMTAGELSR VDGESLCDDC KGKKHLEIHT ATHSQLPQPH RVAGAMGRLC IYTGDLLVQA LRRTRAAGWS VAEAVWSVLW LAVSAPGKAA SGTFWWLGSG WYQFVTLISW LNVFLLTRCL RNICKVFVLL LPLLLLLGAG VSLWGQGNFF SLLPVLNWTA MQPTQRVDDS KGMHRPGPLP PSPPPKVDHK ASQWPQESDM GQKVASLSAQ CHNHDERLAE LTVLLQKLQI RVDQVDDGRE GLSLWVKNVV GQHLQEMGTI EPPDAKTDFM TFHHDHEVRL SNLEDVLRKL TEKSEAIQKE LEETKLKAGS RDEEQPLLDR VQHLELELNL LKSQLSDWQH LKTSCEQAGA RIQETVQLMF SEDQQGGSLE

WLLEKLSSRF VSKDELQVLL HDLELKLLQN ITHHITVTGQ APTSEAIVSA VNQAGISGIT EAQAHIIVNN ALKLYSQDKT GMVDFALESG GGSILSTRCS ETYETKTALL SLFGVPLWYF SQSPRVVIQP DIYPGNCWAF KGSQGYLVVR LSMKIYPTTF TMEHIPKTLS PTGNISSAPK DFAVYGLETE YQEEGQPLGR FTYDQEGDSL QMFHTLERPD QAFQIVELRV LSNWGHPEYT CLYRFRVHGE PIQ

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.

Product Details

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:	SUN1
Alternative Name:	Sun1 (SUN1 Products)
Background:	SUN domain-containing protein 1 (Protein unc-84 homolog A) (Sad1/unc-84 protein-like 1),FUNCTION: As a component of the LINC (LInker of Nucleoskeleton and Cytoskeleton) complex involved in the connection between the nuclear lamina and the cytoskeleton (PubMed:20711465, PubMed:16380439, PubMed:24062341, PubMed:25892231, PubMed:26842404). The nucleocytoplasmic interactions established by the LINC complex play an important role in the transmission of mechanical forces across the nuclear envelope and in nuclear movement and positioning (PubMed:19874786). Required for interkinetic nuclear migration (INM) and essential for nucleokinesis and centrosome-nucleus coupling during radial neuronal migration in the cerebral cortex and during glial migration (PubMed:19874786). Involved in telomere attachment to nuclear envelope in the prophase of meiosis implicating a SUN1/2:KASH5 LINC complex in which SUN1 and SUN2 seem to act at least partial redundantly (PubMed:17543860, PubMed:19211677, PubMed:19509342, PubMed:24062341, PubMed:25892231, PubMed:26842404). Required for gametogenesis and involved in selective gene expression of coding and non-coding RNAs needed for gametogenesis (PubMed:17543860). Helps to define the distribution of nuclear pore complexes (NPCs) (PubMed:17724119). Required for efficient localization of SYNE4 in the nuclear envelope (PubMed:23348741). May be involved in nuclear remodeling during sperm head formation in spermatogenesis (PubMed:20711465). May play a role in DNA repair by suppressing non-homologous end joining repair to facilitate the repair of DNA cross-links (By similarity). {ECO:0000250|UniProtKB:O94901, ECO:0000269|PubMed:16380439, ECO:0000269|PubMed:17543860, ECO:0000269|PubMed:17724119, ECO:0000269|PubMed:19211677, ECO:0000269|PubMed:19509342, ECO:0000269|PubMed:19874786, ECO:0000269|PubMed:20711465, ECO:0000269|PubMed:23348741, ECO:0000269|PubMed:24062341,

Target Details

	ECO:0000269|PubMed:25892231, ECO:0000269|PubMed:26842404}., FUNCTION: Isoform 5 may be involved in nuclear remodeling during sperm head formation in spermatogenesis. A probable SUN1 isoform 5:SYNE3 LINC complex may tether spermatid nuclei to anterior cytoskeletal structures such as actin filaments present at membraneous junctions of spermatids and Sertoli cells. {ECO:0000305|PubMed:20711465}.
Molecular Weight:	102.0 kDa
UniProt:	Q9D666
Pathways:	Maintenance of Protein Location

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 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!
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.

Handling

Expiry Date:	12 months

