Datasheet for ABIN3096234

USP38 Protein (AA 1-1042) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	USP38
Protein Characteristics:	AA 1-1042
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP38 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MDKILEGLVS SSHPLPLKRV IVRKVVESAE HWLDEAQCEA MFDLTTRLIL EGQDPFQRQV GHQVLEAYAR YHRPEFESFF NKTFVLGLLH QGYHSLDRKD VAILDYIHNG LKLIMSCPSV LDLFSLLQVE VLRMVCERPE PQLCARLSDL LTDFVQCIPK GKLSITFCQQ LVRTIGHFQC VSTQERELRE YVSQVTKVSN LLQNIWKAEP ATLLPSLQEV FASISSTDAS FEPSVALASL VQHIPLQMIT VLIRSLTTDP NVKDASMTQA LCRMIDWLSW PLAQHVDTWV IALLKGLAAV QKFTILIDVT LLKIELVFNR LWFPLVRPGA LAVLSHMLLS FQHSPEAFHL IVPHVVNLVH SFKNDGLPSS TAFLVQLTEL IHCMMYHYSG FPDLYEPILE AIKDFPKPSE EKIKLILNQS AWTSQSNSLA SCLSRLSGKS ETGKTGLINL GNTCYMNSVI QALFMATDFR RQVLSLNLNG CNSLMKKLQH LFAFLAHTQR EAYAPRIFFE ASRPPWFTPR SQQDCSEYLR FLLDRLHEEE KILKVQASHK PSEILECSET SLQEVASKAA VLTETPRTSD GEKTLIEKMF GGKLRTHIRC LNCRSTSQKV EAFTDLSLAF CPSSSLENMS VQDPASSPSI QDGGLMQASV PGPSEEPVVY

NPTTAAFICD SLVNEKTIGS PPNEFYCSEN TSVPNESNKI LVNKDVPQKP GGETTPSVTD LLNYFLAPEI LTGDNQYYCE NCASLQNAEK TMQITEEPEY LILTLLRFSY DQKYHVRRKI LDNVSLPLVL ELPVKRITSF SSLSESWSVD VDFTDLSENL AKKLKPSGTD EASCTKLVPY LLSSVVVHSG ISSESGHYYS YARNITSTDS SYQMYHQSEA LALASSQSHL LGRDSPSAVF EQDLENKEMS KEWFLFNDSR VTFTSFQSVQ KITSRFPKDT AYVLLYKKQH STNGLSGNNP TSGLWINGDP PLQKELMDAI TKDNKLYLQE QELNARARAL QAASASCSFR PNGFDDNDPP GSCGPTGGGG GGGFNTVGRL VF

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.

Product Details

- 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:	USP38
Alternative Name:	USP38 (USP38 Products)
Background:	Ubiquitin carboxyl-terminal hydrolase 38 (EC 3.4.19.12) (Deubiquitinating enzyme 38) (HP43.8KD) (Ubiquitin thioesterase 38) (Ubiquitin-specific-processing protease 38),FUNCTION: Deubiquitinating enzyme that plays a role in various cellular processes, including DNA repair, cell cycle regulation, and immune response (PubMed:22689415, PubMed:30497519, PubMed:31874856, PubMed:35238669). Plays a role in the inhibition of type I interferon signaling by mediating the 'Lys-33' to 'Lys-48' ubiquitination transition of TBK1 leading to its degradation (PubMed:27692986). Cleaves the ubiquitin chain from the histone demethylase LSD1/KDM1A and prevents it from degradation by the 26S proteasome, thus maintaining LSD1 protein level in cells (PubMed:30497519). Plays a role in the DNA damage response by regulating the deacetylase activity of HDAC1 (PubMed:31874856). Mechanistically, removes the 'Lys-63'-linked ubiquitin chain promoting the deacetylase activity of HDAC1 in response to DNA damage (PubMed:31874856). Acts also as a specific deubiquitinase of histone deacetylase 3/HDAC3 and cleaves its 'Lys-63'-linked ubiquitin chains to lower its histone deacetylase activity (PubMed:32404892). Regulates MYC levels and cell proliferation via antagonizing ubiquitin E3 ligase FBXW7 thereby preventing MYC 'Lys-48'-linked ubiquitination and degradation (PubMed:34102342). Participates in antiviral response by removing both 'Lys-48'-linked and 'Lys-63'-linked polyubiquitination of Zika virus envelope protein E (PubMed:34696459). Constitutively associated with IL-33R/IL1RL1, deconjugates its 'Lys-27'-linked polyubiquitination resulting in its autophagic degradation (PubMed:35238669). {ECO:0000269|PubMed:22689415, ECO:0000269|PubMed:27692986, ECO:0000269|PubMed:30497519, ECO:0000269|PubMed:31874856, ECO:0000269|PubMed:32404892, ECO:0000269|PubMed:34102342,

Target Details

	ECO:0000269|PubMed:34696459, ECO:0000269|PubMed:35238669}.
Molecular Weight:	116.5 kDa
UniProt:	Q8NB14

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.
Expiry Date:	12 months