Datasheet for ABIN3095744

SUFUH Protein (AA 1-484) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SUFUH
Protein Characteristics:	AA 1-484
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SUFUH protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MAELRPSGAP GPTAPPAPGP TAPPAFASLF PPGLHAIYGE CRRLYPDQPN PLQVTAIVKY WLGGPDPLDY VSMYRNVGSP SANIPEHWHY ISFGLSDLYG DNRVHEFTGT DGPSGFGFEL TFRLKRETGE SAPPTWPAEL MQGLARYVFQ SENTFCSGDH VSWHSPLDNS ESRIQHMLLT EDPQMQPVQT PFGVVTFLQI VGVCTEELHS AQQWNGQGIL ELLRTVPIAG GPWLITDMRR GETIFEIDPH LQERVDKGIE TDGSNLSGVS AKCAWDDLSR PPEDDEDSRS ICIGTQPRRL SGKDTEQIRE TLRRGLEINS KPVLPPINPQ RQNGLAHDRA PSRKDSLESD SSTAIIPHEL IRTRQLESVH LKFNQESGAL IPLCLRGRLL HGRHFTYKSI TGDMAITFVS TGVEGAFATE EHPYAAHGPW LQILLTEEFV EKMLEDLEDL TSPEEFKLPK EYSWPEKKLK VSILPDVVFD SPLH **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.**

Product Details

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:	SUFUH
Alternative Name:	SUFU (SUFUH Products)
Background:	Suppressor of fused homolog (SUFUH),FUNCTION: Negative regulator in the hedgehog/smoothened signaling pathway (PubMed:10559945, PubMed:10564661, PubMed:10806483, PubMed:12068298, PubMed:12975309, PubMed:27234298, PubMed:15367681, PubMed:22365972, PubMed:24217340, PubMed:24311597, PubMed:28965847). Down-regulates GLI1-mediated transactivation of target genes (PubMed:15367681, PubMed:24217340, PubMed:24311597). Down-regulates GLI2-mediated transactivation of target genes (PubMed:24311597, PubMed:24217340). Part of a corepressor complex that acts on DNA-bound GLI1. May also act by linking GLI1 to BTRC and thereby targeting GLI1 to degradation by the proteasome (PubMed:10559945, PubMed:10564661, PubMed:10806483, PubMed:24217340). Sequesters GLI1, GLI2 and GLI3 in the cytoplasm, this effect is overcome by binding of STK36 to both SUFU and a GLI protein (PubMed:10559945, PubMed:10564661, PubMed:10806483, PubMed:24217340). Negative regulator of beta-catenin signaling (By similarity). Regulates the formation of either the repressor form (GLI3R) or the activator form (GLI3A) of the full-length form of GLI3 (GLI3FL) (PubMed:24311597, PubMed:28965847). GLI3FL is complexed with SUFU in the cytoplasm and is maintained in a neutral state (PubMed:24311597, PubMed:28965847). Without the Hh signal, the SUFU-GLI3 complex is recruited to cilia, leading to the efficient processing of GLI3FL into GLI3R (PubMed:24311597, PubMed:28965847). When Hh signaling is initiated, SUFU dissociates from GLI3FL and the latter translocates to the nucleus, where it is phosphorylated, destabilized, and converted to a transcriptional activator (GLI3A) (PubMed:24311597, PubMed:28965847). Required for normal embryonic development (By similarity). Required for the proper formation of hair follicles and the control of epidermal differentiation (By similarity). {ECO:0000250|UniProtKB:Q9Z0P7, ECO:0000269|PubMed:10559945, ECO:0000269|PubMed:10564661, ECO:0000269|PubMed:10806483, ECO:0000269|PubMed:12068298, ECO:0000269|PubMed:12975309, ECO:0000269|PubMed:15367681, ECO:0000269|PubMed:22365972, ECO:0000269|PubMed:24217340, ECO:0000269|PubMed:24311597, ECO:0000269|PubMed:27234298, ECO:0000269|PubMed:28965847}.
Molecular Weight:	53.9 kDa
UniProt:	Q9UMX1
Pathways:	Hedgehog Signaling, Tube Formation, 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.
Expiry Date:	12 months