Datasheet for ABIN3137570

SUFUH Protein (AA 1-484) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	SUFUH
Protein Characteristics:	AA 1-484
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SUFUH protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MAELRPSVAP GPAAPPASGP SAPPAFASLF PPGLHAIYGE CRRLYPDQPN PLQVTAIVKY WLGGPDPLDY VSMYRNMGSP SANIPEHWHY ISFGLSDLYG DNRVHEFTGT DGPSGFGFEL TFRLKRETGE SAPPTWPAEL MQGLARYVFQ SENTFCSGDH VSWHSPLDNS ESRIQHMLLT EDPQMQPVRT PFGVVTFLQI VGVCTEELHS AQQWNGQGIL ELLRTVPIAG GPWLITDMRR GETIFEIDPH LQERVDKGIE TDGSNLSGVS AKCAWDDLSR PPEDEEDSRS ICLGTQPRRL SGKDTEQIRE TLRRGLEINS KPVLPPINSQ RQNGLTHDRA PSRKDSLGSD SSTAIIPHEL IRTRQLESVH LKFNQESGAL IPLCLRGRLL HGRHFTYKSI TGDMAITFVS TGVEGAFATE EHPYAAHGPW LQILLTEEFV EKMLEDLEDL TSPEEFKLPK EYSWPEKKLK VSILPDVVFD SPLH **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Sufu Protein (raised in Insect Cells) purified by multi-step, protein-specific process to

Product Details

	ensure crystallization grade. • 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 will ensure that you receive a correctly folded 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	SUFUH
Alternative Name:	Sufu (SUFUH Products)

Target Details

Background:	Negative regulator in the hedgehog signaling pathway (PubMed:16155214, PubMed:16459298). Down-regulates GLI1-mediated transactivation of target genes. 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. Sequesters GLI1, GLI2 and GLI3 in the cytoplasm, this effect is overcome by binding of STK36 to both SUFU and a GLI protein (PubMed:10531011, PubMed:16459298). Negative regulator of beta-catenin signaling. Regulates the formation of either the repressor form (GLI3R) or the activator form (GLI3A) of the full length form of GLI3 (GLI3FL). GLI3FL is complexed with SUFU in the cytoplasm and is maintained in a neutral state. Without the Hh signal, the SUFU-GLI3 complex is recruited to cilia, leading to the efficient processing of GLI3FL into GLI3R. 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). Required for normal embryonic development (PubMed:16155214, PubMed:16459298). Required for the proper formation of hair follicles and the control of epidermal differentiation. {ECO:0000269|PubMed:10531011, ECO:0000269|PubMed:11477086, ECO:0000269|PubMed:11960000, ECO:0000269|PubMed:16155214, ECO:0000269|PubMed:16459298, ECO:0000269|PubMed:20360384, ECO:0000269|PubMed:23034632}.
Molecular Weight:	54.9 kDa Including tag.
UniProt:	Q9Z0P7
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 gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process