Datasheet for ABIN3093147

ITCH Protein (AA 2-903) (His tag)

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Overview

Quantity:	1 mg
Target:	ITCH
Protein Characteristics:	AA 2-903
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ITCH protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	SDSGSQLGSM GSLTMKSQLQ ITVISAKLKE NKKNWFGPSP YVEVTVDGQS KKTEKCNNTN SPKWKQPLTV IVTPVSKLHF RVWSHQTLKS DVLLGTAALD IYETLKSNNM KLEEVVVTLQ LGGDKEPTET IGDLSICLDG LQLESEVVTN GETTCSENGV SLCLPRLECN SAISAHCNLC LPGLSDSPIS ASRVAGFTGA SQNDDGSRSK DETRVSTNGS DDPEDAGAGE NRRVSGNNSP SLSNGGFKPS RPPRPSRPPP PTPRRPASVN GSPSATSESD GSSTGSLPPT NTNTNTSEGA TSGLIIPLTI SGGSGPRPLN PVTQAPLPPG WEQRVDQHGR VYYVDHVEKR TTWDRPEPLP PGWERRVDNM GRIYYVDHFT RTTTWQRPTL ESVRNYEQWQ LQRSQLQGAM QQFNQRFIYG NQDLFATSQS KEFDPLGPLP PGWEKRTDSN GRVYFVNHNT RITQWEDPRS QGQLNEKPLP EGWEMRFTVD GIPYFVDHNR RTTTYIDPRT GKSALDNGPQ IAYVRDFKAK VQYFRFWCQQ LAMPQHIKIT VTRKTLFEDS FQQIMSFSPQ DLRRRLWVIF PGEEGLDYGG VAREWFFLLS HEVLNPMYCL FEYAGKDNYC LQINPASYIN PDHLKYFRFI GRFIAMALFH GKFIDTGFSL PFYKRILNKP VGLKDLESID PEFYNSLIWV KENNIEECDL EMYFSVDKEI LGEIKSHDLK

	PNGGNILVTE ENKEEYIRMV AEWRLSRGVE EQTQAFFEGF NEILPQQYLQ YFDAKELEVL LCGMQEIDLN DWQRHAIYRH YARTSKQIMW FWQFVKEIDN EKRMRLLQFV TGTCRLPVGG FADLMGSNGP QKFCIEKVGK ENWLPRSHTC FNRLDLPPYK SYEQLKEKLL FAIEETEGFG QE **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. • Human ITCH Protein (raised in Insect Cells) purified by multi-step, protein-specific process to 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

Product Details

Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	ITCH
Alternative Name:	ITCH (ITCH Products)
Background:	Acts as an E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. It catalyzes 'Lys-29'-, 'Lys-48'- and 'Lys-63'-linked ubiquitin conjugation. It is involved in the control of inflammatory signaling pathways. Is an essential component of a ubiquitin-editing protein complex, comprising also TNFAIP3, TAX1BP1 and RNF11, that ensures the transient nature of inflammatory signaling pathways. Promotes the association of the complex after TNF stimulation. Once the complex is formed, TNFAIP3 deubiquitinates 'Lys-63' polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteasomal degradation and consequently termination of the TNF- or LPS-mediated activation of NFKB1. Ubiquitinates RIPK2 by 'Lys-63'-linked conjugation and influences NOD2-dependent signal transduction pathways. Regulates the transcriptional activity of several transcription factors, and probably plays an important role in the regulation of immune response. Ubiquitinates NFE2 by 'Lys-63' linkages and is implicated in the control of the development of hematopoietic lineages. Critical regulator of T-helper (TH2) cytokine development through its ability to induce JUNB ubiquitination and degradation (By similarity). Ubiquitinates SNX9. Ubiquitinates CXCR4 and HGS/HRS and regulates sorting of CXCR4 to the degradative pathway. It is involved in the negative regulation of MAVS-dependent cellular antiviral responses. Ubiquitinates MAVS through 'Lys-48'-linked conjugation resulting in MAVS proteasomal degradation. Involved in the regulation of apoptosis and reactive oxygen species levels through the ubiquitination and proteasomal degradation of TXNIP. Mediates the antiapoptotic activity of epidermal growth factor through the ubiquitination and proteasomal degradation of p15 BID. Targets DTX1 for lysosomal degradation and controls NOTCH1 degradation, in the absence of ligand, through 'Lys-29'-linked polyubiquitination. Ubiquitinates BRAT1 and this ubiquitination is enhanced in the presence of NDFIP1 (PubMed:25631046). {ECO:0000250|UniProtKB:Q8C863, ECO:0000269|PubMed:14602072, ECO:0000269|PubMed:16387660, ECO:0000269|PubMed:17028573, ECO:0000269|PubMed:18628966, ECO:0000269|PubMed:18718448, ECO:0000269|PubMed:18718449, ECO:0000269|PubMed:19131965,

Target Details

	ECO:0000269|PubMed:19592251, ECO:0000269|PubMed:19881509, ECO:0000269|PubMed:20068034, ECO:0000269|PubMed:20392206, ECO:0000269|PubMed:23146885, ECO:0000269|PubMed:25631046}.
Molecular Weight:	103.6 kDa Including tag.
UniProt:	Q96J02
Pathways:	Activation of Innate immune Response, CXCR4-mediated Signaling Events

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:	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
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)

