Datasheet for ABIN3094377

PASK Protein (AA 1-1323) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PASK
Protein Characteristics:	AA 1-1323
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PASK protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MEDGGLTAFE EDQRCLSQSL PLPVSAEGPA AQTTAEPSRS FSSAHRHLSR RNGLSRLCQS RTALSEDRWS SYCLSSLAAQ NICTSKLHCP AAPEHTDPSE PRGSVSCCSL LRGLSSGWSS PLLPAPVCNP NKAIFTVDAK TTEILVANDK ACGLLGYSSQ DLIGQKLTQF FLRSDSDVVE ALSEEHMEAD GHAAVVFGTV VDIISRSGEK IPVSVWMKRM RQERRLCCVV VLEPVERVST WVAFQSDGTV TSCDSLFAHL HGYVSGEDVA GQHITDLIPS VQLPPSGQHI PKNLKIQRSV GRARDGTTFP LSLKLKSQPS SEEATTGEAA PVSGYRASVW VFCTISGLIT LLPDGTIHGI NHSFALTLFG YGKTELLGKN ITFLIPGFYS YMDLAYNSSL QLPDLASCLD VGNESGCGER TLDPWQGQDP AEGGQDPRIN VVLAGGHVVP RDEIRKLMES QDIFTGTQTE LIAGGQLLSC LSPQPAPGVD NVPEGSLPVH GEQALPKDQQ ITALGREEPV AIESPGQDLL GESRSEPVDV KPFASCEDSE APVPAEDGGS DAGMCGLCQK AQLERMGVSG PSGSDLWAGA AVAKPQAKGQ LAGGSLLMHC PCYGSEWGLW WRSQDLAPSP SGMAGLSFGT PTLDEPWLGV ENDREELQTC LIKEQLSQLS LAGALDVPHA ELVPTECQAV TAPVSSCDLG GRDLCGGCTG SSSACYALAT

	DLPGGLEAVE AQEVDVNSFS WNLKELFFSD QTDQTSSNCS CATSELRETP SSLAVGSDPD VGSLQEQGSC VLDDRELLLL TGTCVDLGQG RRFRESCVGH DPTEPLEVCL VSSEHYAASD RESPGHVPST LDAGPEDTCP SAEEPRLNVQ VTSTPVIVMR GAAGLQREIQ EGAYSGSCYH RDGLRLSIQF EVRRVELQGP TPLFCCWLVK DLLHSQRDSA ARTRLFLASL PGSTHSTAAE LTGPSLVEVL RARPWFEEPP KAVELEGLAA CEGEYSQKYS TMSPLGSGAF GFVWTAVDKE KNKEVVVKFI KKEKVLEDCW IEDPKLGKVT LEIAILSRVE HANIIKVLDI FENQGFFQLV MEKHGSGLDL FAFIDRHPRL DEPLASYIFR QLVSAVGYLR LKDIIHRDIK DENIVIAEDF TIKLIDFGSA AYLERGKLFY TFCGTIEYCA PEVLMGNPYR GPELEMWSLG VTLYTLVFEE NPFCELEETV EAAIHPPYLV SKELMSLVSG LLQPVPERRT TLEKLVTDPW VTQPVNLADY TWEEVFRVNK PESGVLSAAS LEMGNRSLSD VAQAQELCGG PVPGEAPNGQ GCLHPGDPRL LTS **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 PASK 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

Product Details

	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:	PASK
Alternative Name:	PASK (PASK Products)
Background:	Serine/threonine-protein kinase involved in energy homeostasis and protein translation. Phosphorylates EEF1A1, GYS1, PDX1 and RPS6. Probably plays a role under changing environmental conditions (oxygen, glucose, nutrition), rather than under standard conditions. Acts as a sensor involved in energy homeostasis: regulates glycogen synthase synthesis by mediating phosphorylation of GYS1, leading to GYS1 inactivation. May be involved in glucose-stimulated insulin production in pancreas and regulation of glucagon secretion by glucose in alpha cells, however such data require additional evidences. May play a role in regulation of protein translation by phosphorylating EEF1A1, leading to increase translation efficiency. May also participate to respiratory regulation. {ECO:0000269|PubMed:16275910, ECO:0000269|PubMed:17052199, ECO:0000269|PubMed:17595531, ECO:0000269|PubMed:20943661, ECO:0000269|PubMed:21181396, ECO:0000269|PubMed:21418524}.
Molecular Weight:	143.9 kDa Including tag.
UniProt:	Q96RG2
Pathways:	Regulation of Carbohydrate Metabolic Process

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

Application Details

	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)

Images

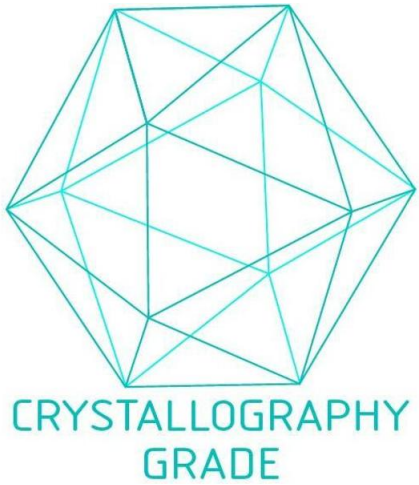

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process