Datasheet for ABIN3114534

FAP Protein (AA 24-760) (rho-1D4 tag)

1 Image

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Overview

Quantity:	1 mg
Target:	FAP
Protein Characteristics:	AA 24-760
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAP protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	IVLRPSRVHN SEENTMRALT LKDILNGTFS YKTFFPNWIS GQEYLHQSAD NNIVLYNIET GQSYTILSNR TMKSVNASNY GLSPDRQFVY LESDYSKLWR YSYTATYYIY DLSNGEFVRG NELPRPIQYL CWSPVGSKLA YVYQNNIYLK QRPGDPPFQI TFNGRENKIF NGIPDWVYEE EMLATKYALW WSPNGKFLAY AEFNDTDIPV IAYSYYGDEQ YPRTINIPYP KAGAKNPVVR IFIIDTTYPA YVGPQEVPVP AMIASSDYYF SWLTWVTDER VCLQWLKRVQ NVSVLSICDF REDWQTWDCP KTQEHIEESR TGWAGGFFVS TPVFSYDAIS YYKIFSDKDG YKHIHYIKDT VENAIQITSG KWEAINIFRV TQDSLFYSSN EFEEYPGRRN IYRISIGSYP PSKKCVTCHL RKERCQYYTA SFSDYAKYYA LVCYGPGIPI STLHDGRTDQ EIKILEENKE LENALKNIQL PKEEIKKLEV DEITLWYKMI LPPQFDRSKK YPLLIQVYGG PCSQSVRSVF AVNWISYLAS KEGMVIALVD GRGTAFQGDK LLYAVYRKLG VYEVEDQITA VRKFIEMGFI DEKRIAIWGW SYGGYVSSLA LASGTGLFKC GIAVAPVSSW EYYASVYTER FMGLPTKDDN LEHYKNSTVM ARAEYFRNVD YLLIHGTADD NVHFQNSAQI AKALVNAQVD FQAMWYSDQN HGLSGLSTNH

Product Details

	LYTHMTHFLK QCFSLSD **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 FAP 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:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: 1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot. 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot. 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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:	FAP
Alternative Name:	FAP (FAP Products)
Background:	Cell surface glycoprotein serine protease that participates in extracellular matrix degradation and involved in many cellular processes including tissue remodeling, fibrosis, wound healing, inflammation and tumor growth. Both plasma membrane and soluble forms exhibit post-proline cleaving endopeptidase activity, with a marked preference for Ala/Ser-Gly-Pro-Ser/Asn/Ala consensus sequences, on substrate such as alpha-2-antiplasmin SERPINF2 and SPRY2 (PubMed:14751930, PubMed:16223769, PubMed:16480718, PubMed:16410248, PubMed:17381073, PubMed:18095711, PubMed:21288888, PubMed:24371721). Degrade also gelatin, heat-denatured type I collagen, but not native collagen type I and IV, vibronectin, tenascin, laminin, fibronectin, fibrin or casein (PubMed:9065413, PubMed:2172980, PubMed:7923219, PubMed:10347120, PubMed:10455171, PubMed:12376466, PubMed:16223769, PubMed:16651416, PubMed:18095711). Have also dipeptidyl peptidase activity, exhibiting the ability to hydrolyze the prolyl bond two residues from the N-terminus of synthetic dipeptide substrates provided that the penultimate residue is proline, with a preference for Ala-Pro, Ile-Pro, Gly-Pro, Arg-Pro and Pro-Pro (PubMed:10347120, PubMed:10593948, PubMed:16175601, PubMed:16223769, PubMed:16651416, PubMed:16410248, PubMed:17381073, PubMed:21314817, PubMed:24371721, PubMed:24717288). Natural neuropeptide hormones for dipeptidyl peptidase are the neuropeptide Y (NPY), peptide YY (PYY), substance P (TAC1) and brain natriuretic peptide 32 (NPPB) (PubMed:21314817). The plasma membrane form, in association with either DPP4, PLAUR or integrins, is involved in the pericellular proteolysis of the extracellular matrix (ECM), and hence promotes cell adhesion, migration and invasion through the ECM. Plays a role in tissue remodeling during development and wound healing. Participates in the cell invasiveness towards the ECM in malignant melanoma cancers. Enhances tumor growth progression by increasing angiogenesis, collagen fiber degradation and apoptosis and by reducing antitumor response of the immune system. Promotes glioma cell invasion through the brain parenchyma by degrading the proteoglycan brevican. Acts as a tumor suppressor in melanocytic cells through regulation of cell proliferation and survival in a serine protease activity-independent manner. {ECO:0000250|UniProtKB:P97321, ECO:0000269|PubMed:10347120,

Target Details

	ECO:0000269|PubMed:10455171, ECO:0000269|PubMed:10593948, ECO:0000269|PubMed:12376466, ECO:0000269|PubMed:14751930, ECO:0000269|PubMed:16175601, ECO:0000269|PubMed:16223769, ECO:0000269|PubMed:16410248, ECO:0000269|PubMed:16480718, ECO:0000269|PubMed:16651416, ECO:0000269|PubMed:17105646, ECO:0000269|PubMed:17381073, ECO:0000269|PubMed:18095711, ECO:0000269|PubMed:20707604, ECO:0000269|PubMed:21288888, ECO:0000269|PubMed:21314817, ECO:0000269|PubMed:2172980, ECO:0000269|PubMed:24371721, ECO:0000269|PubMed:24717288, ECO:0000269|PubMed:7923219, ECO:0000269|PubMed:9065413}.
Molecular Weight:	86.4 kDa Including tag.
UniProt:	Q12884
Pathways:	Tube Formation

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)

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