

Datasheet for ABIN755516
FAP Protein (AA 1-760) (His tag)



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3 Images

Overview

Quantity:	1 mg
Target:	FAP
Protein Characteristics:	AA 1-760
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAP protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant FAP Protein expressed in mammalian cells.
Sequence:	<p>MKTWVKIVFG VATSAVLALL VMCIVLRPSR VHNSEENTMR ALTLKDILNG TFSYKTFFPN</p> <p>WISGQEYLHQ SADNNIVLYN IETGQSYTIL SNRTMKSVNA SNYGLSPDRQ FVYLESYYSK</p> <p>LWRYSYTATY YIYDLSNGEF VRGNELPRPI QYLCWSPVGS KLAYVYQNNI YLKQRPDPP</p> <p>FQITFNGREN KIFNGIPDWV YEEEMLATKY ALWWSPNGKF LAYAEFNDDT IPVIAYSYYG</p> <p>DEQYPTINI PYPKAGAKNP VVRIFIIDTT YPAYVGPQEV PVPAMIASSD YYFSWLTWVT</p> <p>DERVCLQWLK RVQNVSVLSI CDFREDWQTW DCPKTQEHIE ESRTGWAGGF FVSTPVFSYD</p> <p>AISYYKIFSD KDGKHHIHYI KDTVENAIQI TSGKWEAINI FRVTQDSLFI SSNEFEEYPG RRNIYRISIG</p> <p>SYPPSKKCVT CHLRKERCQY YTASFSDYAK YYALVCYGPG IPISTLHDGR TDQEIKILEE</p> <p>NKELENALKN IQLPKEEIKK LEVDEITLWY KMILPPQFDR SKKYPLLIQV YGGPCSQSVR</p> <p>SVFAVNWISY LASKEGMVIA LVDGRGTAFQ GDKLLYAVYR KLGVEVEDQ ITAVRKFIEM</p> <p>GFIDEKRIAI WGWSYGGYVS SLALASGTGL FKCGIAVAPV SSWEYYASVY TERFMGLPTK</p> <p>DDNLEHYKNS TVMARAHEYFR NVDYLLIHGT ADDNVHFQNS AQIAKALVNA QVDFQAMWYS</p>

DQNHGLSGLS TNHLYTHMTH FLKQCFSLSD **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**

Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.• Protein expressed in mammalian cells and purified in one-step affinity chromatography• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p>
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	FAP
Alternative Name:	FAP (FAP Products)
Background:	<p>Prolyl endopeptidase FAP (EC 3.4.21.26) (170 kDa melanoma membrane-bound gelatinase) (Dipeptidyl peptidase FAP) (EC 3.4.14.5) (Fibroblast activation protein alpha) (FAPalpha) (Gelatine degradation protease FAP) (EC 3.4.21.-) (Integral membrane serine protease) (Post-proline cleaving enzyme) (Serine integral membrane protease) (SIMP) (Surface-expressed protease) (Seprase) [Cleaved into: Antiplasmin-cleaving enzyme FAP, soluble form (APCE) (EC 3.4.14.5) (EC 3.4.21.-) (EC 3.4.21.26)],FUNCTION: Cell surface glycoprotein serine protease that participates in extracellular matrix degradation and involved in many cellular processes</p>

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, vitronectin, tenascin, laminin, fibronectin, fibrin or casein (PubMed:9065413, PubMed:2172980, PubMed:7923219, PubMed:10347120, PubMed:10455171, PubMed:12376466, PubMed:16223769, PubMed:16651416, PubMed:18095711). Also has 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, 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,

Target Details

	ECO:0000269 PubMed:9065413}.
Molecular Weight:	87.7 kDa
UniProt:	Q12884
Pathways:	Tube Formation

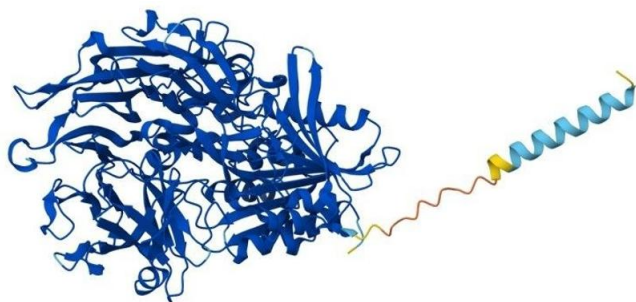
Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months

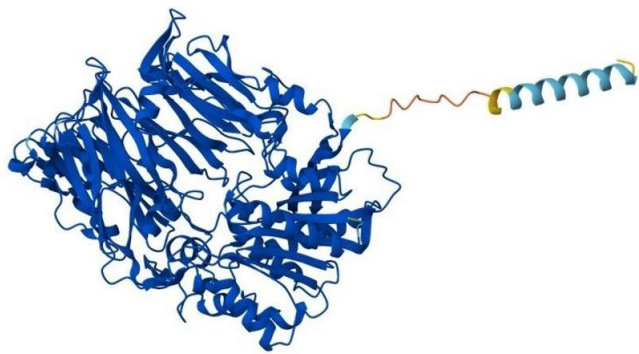
Images



Protein Structure

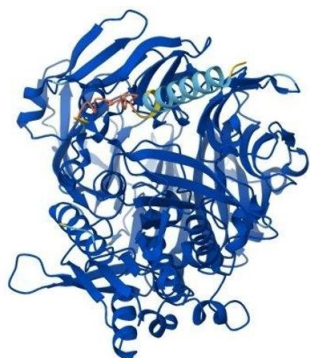
Image 1. AlphaFold protein structure prediction of Human Recombinant FAP Protein, UniprotID Q12884





Protein Structure

Image 2. AlphaFold protein structure prediction of Human Recombinant FAP Protein, UniprotID Q12884



Protein Structure

Image 3. AlphaFold protein structure prediction of Human Recombinant FAP Protein, UniprotID Q12884