Datasheet for ABIN3137185

ERAP1 Protein (AA 1-930) (rho-1D4 tag)

1 Image

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Overview

Quantity:	1 mg
Target:	ERAP1
Protein Characteristics:	AA 1-930
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ERAP1 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MPSLLPLVLT FLSVSSPSWC QNSDIESLKA SNGDSFPWNN MRLPEYMTPI HYDLMIHANL STLTFWGKTE VEIIASRPTS TIIMHSHHLQ ISKATLRRGA GEMLSEEPLK VLEYPAHEQV ALLAAQPLLA GSLYTVIIDY AANLSESFHG FYKSTYRTQE GEMRILAATQ FEPTAARMAF PCFDEPALKA SFSIKIKRDP RHLAISNMPL VKSVNVAEGL IEDHFDITVK MSTYLVAFII SDFKSVSKMT KSGVKVSVYA VPDKINQADY ALDAAVTLLE FYEDYFNIPY PLPKQDLAAI PDFQSGAMEN WGLTTYRESS LLYDKEKSSA SSKLGITMIV SHELAHQWFG NLVTMEWWND LWLNEGFAKF MEFVSVTVTH PELKVEDYFF GKCFNAMEVD ALNSSHPVST PVENPAQIRE MFDDVSYEKG ACILNMLRDY LSADTFKRGI VQYLQKYSYK NTKNEDLWNS MMHICPTDGT QTMDGFCSRS QHSSSTSHWR QEVVDVKTMM NTWTLQKGFP LITITVSGRN VHMKQEHYMK GSERFPETGY LWHVPLTFIT SKSDSVQRFL LKTKTDVLIL PEAVQWIKFN VGMNGYYIVH YADDGWASLS GLLKEAHTTI SSNDRASLIN NAFQLVSIEK LSIEKALDLT LYLKNETEIM PIFQALNELI PMYKLMEKRD MIEVETQFKD FLLKLLKDLI DKQTWTDEGS VSERMLRSQL

	LLLACVRNYQ PCVQRAERYF REWKSSNGNM SIPIDVTLAV FAVGAQNTEG WDFLYSKYQS SLSSTEKSQI EFSLCTSKDP EKLQWLLDQS FKGEIIKTQE FPHILTLIGR NPVGYPLAWK FLRENWNKLV QKFELGSSSI AHMVMGTTDQ FSTRARLEEV KGFFSSLKEN GSQLRCVQQT IETIEENIRW MDKNFDKIRL WLQKEKPELL **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 Erap1 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

Product Details

	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:	ERAP1
Alternative Name:	Erap1 (ERAP1 Products)
Background:	Aminopeptidase that plays a central role in peptide trimming, a step required for the generation of most HLA class I-binding peptides. Peptide trimming is essential to customize longer precursor peptides to fit them to the correct length required for presentation on MHC class I molecules. Strongly prefers substrates 9-16 residues long. Rapidly degrades 13-mer to a 9-mer and then stops. Preferentially hydrolyzes the residue Leu and peptides with a hydrophobic C-terminus, while it has weak activity toward peptides with charged C-terminus. May play a role in the inactivation of peptide hormones. May be involved in the regulation of blood pressure through the inactivation of angiotensin II and/or the generation of bradykinin in the kidney (By similarity). {ECO:0000250}.
Molecular Weight:	107.8 kDa Including tag.
UniProt:	Q9EQH2

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
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

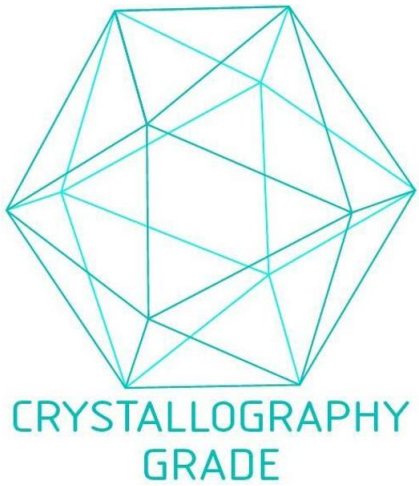

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process