Datasheet for ABIN3131788

Integrin beta 3 Protein (ITGB3) (AA 26-787) (rho-1D4 tag)

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Overview

Quantity:	1 mg
Target:	Integrin beta 3 (ITGB3)
Protein Characteristics:	AA 26-787
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Integrin beta 3 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	ESNICTTRGV NSCQQCLAVS PVCAWCSDET LSQGSPRCNL KENLLKDNCA PESIEFPVSE AQILEARPLS SKGSGSSAQI TQVSPQRIAL RLRPDDSKIF SLQVRQVEDY PVDIYYLMDL SFSMKDDLSS IQTLGTKLAS QMRKLTSNLR IGFGAFVDKP VSPYMYISPP QAIKNPCYNM KNACLPMFGY KHVLTLTDQV SRFNEEVKKQ SVSRNRDAPE GGFDAIMQAT VCDEKIGWRN DASHLLVFTT DAKTHIALDG RLAGIVLPND GHCHIGTDNH YSASTTMDYP SLGLMTEKLS QKNINLIFAV TENVVSLYQN YSELIPGTTV GVLSDDSSNV LQLIVDAYGK IRSKVELEVR DLPEELSLSF NATCLNNEVI PGLKSCVGLK IGDTVSFSIE AKVRGCPQEK EQSFTIKPVG FKDSLTVQVT FDCDCACQAF AQPSSPRCNN GNGTFECGVC RCDQGWLGSM CECSEEDYRP SQQEECSPKE GQPICSQRGE CLCGQCVCHS SDFGKITGKY CECDDFSCVR YKGEMCSGHG QCNCGDCVCD SDWTGYYCNC TTRTDTCMST NGLLCSGRGN CECGSCVCVQ PGSYGDTCEK CPTCPDACSF KKECVECKKF NRGTLHEENT CSRYCRDDIE QVKELTDTGK NAVNCTYKNE DDCVVRFQYY EDTSGRAVLY VVEEPECPKG PDILVVLLSV MGAILLIGLA TLLIWKLLIT

Product Details

	IHDRKEFAKF EEERARAKWD TANNPLYKEA TSTFTNITYR GT **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 Itgb3 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:	Integrin beta 3 (ITGB3)
Alternative Name:	Itgb3 (ITGB3 Products)
Background:	Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIB/beta-3 (ITGA2B:ITGB3) is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIB/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha-IIB/beta-3 recognizes the sequence H-H-L-G-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin alpha-IIB/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surfaces. Fibrinogen binding enhances SELP expression in activated platelets (PubMed:19332769). ITGAV:ITGB3 binds to fractalkine (CX3CL1) and acts as its coreceptor in CX3CR1-dependent fractalkine signaling. ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling. ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling. ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (By similarity). ITGAV:ITGB3 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (By similarity). {ECO:0000250|UniProtKB:P05106, ECO:0000269|PubMed:19332769}.
Molecular Weight:	85.4 kDa Including tag.
UniProt:	O54890
Pathways:	Regulation of G-Protein Coupled Receptor Protein Signaling, Signaling Events mediated by VEGFR1 and VEGFR2, Smooth Muscle Cell Migration, Integrin Complex

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.

Application Details

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)