

Datasheet for ABIN3111909

Integrin beta 3 Protein (ITGB3) (AA 27-788) (rho-1D4 tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	Integrin beta 3 (ITGB3)
Protein Characteristics:	AA 27-788
Origin:	Human
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:	GNICTTRGV SSCQQCLAVS PMCAWCSDEA LPLGSPRCDL KENLLKDNCA PESIEFPVSE ARVLEDRLPS DKGSGDSSQV TQVSPQRIAL RLRPDDSKNF SIQVRQVEDY PVDIYYLMDL SYSMKDDLWS IQNLGTKLAT QMRKLTSNLR IGFGAFVDKP VSPYMYISPP EALENPCYDM KTTCLPMFGY KHVLTLTQV TRFNEEVKKQ SVSRNRDAPE GGFDAIMQAT VCDEKIGWRN DASHLLVFTT DAKTHIALDG RLAGIVQPND GQCHVGSDNH YSASTTMDYP SLGLMTEKLS QKNINLIFAV TENVVNLYQN YSELIPGTTV GVLSMDSSNV LQLIVDAYGK IRSKVELEVR DLPEELSLSF NATCLNNEVI PGLKSCMGLK IGDTVSFSIE AKVRGCPQEK EKSFTIKPVG FKDSLIVQVT FDCDCACQAQ AEPNSHRCNN GNGTFECGVC RCGPGWLGSQ CECSEEDYRP SQQDECSPRE GQPVCSQRGE CLCGQCVCHS SDFGKITGKY CECDDFSCVR YKGEMCSGHG QCSCGDCLCD SDWTGYCNC TTRTDTCMSS NGLLCSGRGK CECGSCVCIQ PGSYGDTCEK CPTCPDACTF KKECVECKKF DRGALHDENT CNRYCRDEIE SVKELKDTGK DAVNCTYKNE DDCVVRFQYY EDSSGKSILY VVEEPECPKG PDILVVLLSV MGAILLIGLA ALLIWKLLIT
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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:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human 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). <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 will ensure that you receive a correctly folded protein.</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> <p>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).</p> <p>When you order this made-to-order protein you will only pay upon receipt 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.</p> <p>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.</p> <p>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.</p>
Purification:	<p>Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none">1. Membrane proteins are fractionated 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-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 surface. Fibrinogen binding enhances SELP expression in activated platelets (By similarity). ITGAV:ITGB3 binds to fractalkine (CX3CL1) and acts as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:23125415, PubMed:24789099). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling (PubMed:18441324). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:19578119). {ECO:0000250|UniProtKB:O54890, ECO:0000269|PubMed:18441324, ECO:0000269|PubMed:19578119, ECO:0000269|PubMed:20682778, ECO:0000269|PubMed:23125415, ECO:0000269|PubMed:24789099, ECO:0000269|PubMed:9195946, ECO:0000303|PubMed:16322781, ECO:0000303|PubMed:17635696}., (Microbial infection) Integrin ITGAV:ITGB3 acts as a receptor for herpes virus 8/HHV-8 (PubMed:18045938). Integrin ITGAV:ITGB3 acts as a receptor for coxsackievirus A9 (PubMed:7519807). Acts as a receptor for Hantaan virus (PubMed:9618541). Integrin ITGAV:ITGB3 acts as a receptor for cytomegalovirus/HHV-5 (PubMed:15834425). Integrin ITGA5:ITGB3 acts as a receptor for human metapneumovirus (PubMed:24478423). Integrin ITGAV:ITGB3 acts as a receptor for human parechovirus 1 (PubMed:11160695). Integrin ITGAV:ITGB3 acts as a receptor for west nile virus (PubMed:23658209). In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions (PubMed:10397733). {ECO:0000269|PubMed:10397733, ECO:0000269|PubMed:11160695,

Target Details

ECO:0000269|PubMed:15834425, ECO:0000269|PubMed:18045938,
ECO:0000269|PubMed:23658209, ECO:0000269|PubMed:24478423,
ECO:0000269|PubMed:7519807, ECO:0000269|PubMed:9618541}.

Molecular Weight: 85.6 kDa Including tag.

UniProt: [P05106](#)

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 guarantee 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