

Datasheet for ABIN3134071

CD51 Protein (AA 31-1044) (rho-1D4 tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	CD51 (ITGAV)
Protein Characteristics:	AA 31-1044
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CD51 protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>FNLDVESPAE YAGPEGSYFG FAVDFFEPST SSRMFLLVGA PKANTTQPGI VEGGQVLKCE</p> <p>CSSSRRCQPI EFDSTGNRDY AKDDPLEFKS HQWFGASVRS KQDKILACAP LYHWRTEMKQ</p> <p>EREVGTGCF LQDGTCTVEYA PCRSKNIDAD GQGFCQGGFS IDFTKADRVL LGGPGSFYWQ</p> <p>GQLISDQVAE IISKYDPNVY SIKYNNQLAT RTAQAIFFDS YLGYSVAVGD FNGDGIEDFV</p> <p>SGVPRAARTL GMVYIDGKN MSSLNHTGE QMAAYFGFSV AATDINGDDY ADVFIGAPLF</p> <p>MDRGSDGKLQ EVGQVSLSLQ RAVGDFQTTK LNGFEVFARF GSAIAPLGDL DQDGFNDIAI</p> <p>AAPYGGEDKK GLVYIFNGRS TGLNSVPSQI LEGQWAAQSM PPSFGYSMKG ATDVDRNGYP</p> <p>DLVVGAFGVD RAVLYRARPV VTNAGLEVY PSILNQDNKI CPLPGTALKV SCFNVRFCLK</p> <p>ADGKGTLP RK LHFQVELLD KLKQKGAIRR ALFLHNRSPV HSKTMTVFRG GQMQCEELVA</p> <p>YLRDESEFRD KLTPITIFME YRLDQRTAAD ATGLQPILNQ FTPANVSRQA HILLDCGEDN</p> <p>VCKPKLEVSV NSDQKKIYIG DDNPLTLTVK AQNQGEGAYE AELIVSIPPQ ADFIGVVRNN</p> <p>EALARLSCAF K TENQTRQVV CDLG NPMKAG TQLLAGLRFS VHQQSEMDTS VKFDLKIQSS</p>
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NSFDNVSPVW SYKVDLAVLA AVEIRGVSSP DHIFLPIPNW EYKENPETEE DVGPIVQHIY
ELRNNGPSSF SKAILNLQWP YKYNNTLLY ILHYDIDGPM NCTADTEINP LRIKTPEKND
TAAAGQGGERN HLITKRDLTL REGDVHTLGC GIAKCLQITC QVGRDLRGKS AILYVKSLLW
TETFMNKENQ NHSYSLKSSA SFNIEFPYK NLPIDLFNS TLVTTNITWG IQPAPMPVPV
WVILAVLAG LLLAVLVFV MYRMGFFKRV RPPQEEQERE QLQPHENGEG NSET

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 Itgav 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 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.

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 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

Product Details

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

Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

Target Details

Target: CD51 (ITGAV)

Alternative Name: Itgav ([ITGAV Products](#))

Background: The alpha-V (ITGAV) integrins are receptors for vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin and vWF. They recognize the sequence R-G-D in a wide array of ligands. Alpha-V integrins may play a role in embryo implantation, angiogenesis and wound healing (PubMed:9827803). ITGAV:ITGB3 binds to fractalkine (CX3CL1) and may act 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:P06756, ECO:0000269|PubMed:9827803}.

Molecular Weight: 113.5 kDa Including tag.

UniProt: [P43406](#)

Pathways: [Cell-Cell Junction Organization](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [Growth Factor Binding](#), [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.

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)

Images



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