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Datasheet for ABIN3134756
ITGA4 Protein (AA 41-1039) (rho-1D4 tag)

Overview

| | |
|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | ITGA4 |
| Protein Characteristics: | AA 41-1039 |
| Origin: | Mouse |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ITGA4 protein is labelled with rho-1D4 tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys) |

Product Details

Sequence: YNLDPENALL YQGPGTLFG YSVVLHSHGS KRWLIVGAPT ASWLSNASVV NPGAIYRCGI
RKNPNQTCEQ LQSGSPSGEP CGKTCLEERD NQWLGVTLR QPGENSIVT CGHRWKNIFY
MKSDNKLPTG ICYVMPSDLR TELSARMAPC YKDYTRKFGF NFASCQAGIS SFYTQDLIVM
GAPGSSYWTG TVFVYNITTN QYKAFVDRQN QVKFGSYLGY SVGAGHFRSP HTEEVGGAP
QHEQIGKAYI FSIDENELNI VYEMKGGKLG SYFGASVCAV DLNADGFSDL LVGAPMQSTI
REEGRVFVYI NSGMGAVMVE MERVLVGS DK YAARFGESIA NLGDIDNDGF EDIAIGAPQE
DDLRGAVYIY NGRVDGISST YSQRIEQQI SKSLRMFGQS ISGQIDADNN GYVDVAVGAF
QSDSAVLLRT RPVVIVEASL SHPESVNRTK FDCTENGLPS VCMHLTLCFS YKGKEVPGYI
VLFYNVSLDV HRKAESPSRF YFFSNGTSDV ITGSIRVSSS GEKCRTHQAF MRKDVRDILT
PIHVEATYHL GHHVITKRNT EEFPLQPIL QQKKEKDVIR KMINFARFCA YENC SADLQV
SAKVGFLKPY ENKTYLAVGS MKTIMLNVSL FNAGDDAYET TLNVQLPTGL YFIKILDL EE
KQINCEVTES SGIVKLACSL GYIYVDRLSR IDISFLLDVS SLSRAHEDLS ISVHASCENE

GELDQVRDNR VTLTIPLRYE VMLTVHGLVN PTSFVYGSSE ENPETCMAE KLNLTFHVIN
TGISMAPNVS VKIMVPNSFL PQDDKLFNVL DVQTTTGQCH FKHYGRECTF AQQKGIAGTL
TDIVKFLSKT DKRLLYCMKA DQHCLDFLCN FGKMESGKEA SVHIQLEGRP SILEMDETSS
LKFEIKATAF PEPHPKVIEL NKDENVAHVLF LEGLHHQRPK RHFTIIITI SLLLGLIVLL LISCVMWKAG
FFKRQYKSIL QEENRRDSWS YVNSKSNDD

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 Itga4 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

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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: ITGA4

Alternative Name: Itga4 ([ITGA4 Products](#))

Background: Integrins alpha-4/beta-1 (VLA-4 or LPAM-2) and alpha-4/beta-7 (LPAM-1) are receptors for fibronectin. They recognize one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. They are also receptors for VCAM1. Integrin alpha-4/beta-1 recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-4/beta-7 is also a receptor for MADCAM1. It recognizes the sequence L-D-T in MADCAM1. On activated endothelial cells integrin VLA-4 triggers homotypic aggregation for most VLA-4-positive leukocyte cell lines. It may also participate in cytolytic T-cell interactions with target cells. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling. ITGA4:ITGB1 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. {ECO:0000250|UniProtKB:P13612}.

Molecular Weight: 112.6 kDa Including tag.

UniProt: [Q00651](#)

Pathways: [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: 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

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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)
