

Datasheet for ABIN3093169

Integrin beta 4 Protein (ITGB4) (AA 734-1822) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	Integrin beta 4 (ITGB4)
Protein Characteristics:	AA 734-1822
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Integrin beta 4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: KYCACCKACL ALLPCCNRGH MVGFKEDHYM LRENLMASDH LDTPMLRSGN LKGRDVVRWK
 VTNNMQRPGF ATHAASINPT ELVPYGLSLR LARLCTENLL KPDTRECAQL RQEVEENLNE
 VYRQISGVHK LQQTFRQQP NAGKKQDHTI VDTVLMAPRS AKPALLKLTE KQVEQRAFHD
 LKVAPGYTTL TADQDARGMV EFQEGVELVD VRVPLFIRPE DDDEKQLLVE AIDVPAGTAT
 LGRRLVNITI IKEQARDVVS FEQPEFSVSR GDQVARIPVI RRVLDGGKSQ VSYRTQDGT
 QGNRDYIPVE GELLFQPGA WKELQVKLLE LQEVDSLLRG RQVRRFHVQL SNPKFGAHLG
 QPHSTTIIR DPDELDRSFT SQMLSSQPPP HGD LGAPQNP NAKAAGSRKI HFNWLPPSGK
 PMGYRVKYWI QGDSESE AHL LDSKVPSVEL TNLYPYCDYE MKVCAYGAQG EGPYSSLVSC
 RTHQEVPSSEP GRLAFNVVSS TVTQLSWAEP AETNGEITAY EVCYGLVND NRP IGP MKKV
 LVDNPKNRML LIENLRESQP YRYTVKARNG AGWGP EREAI INLATQPKRP MSIIIPDIP
 IVDAQSGEDY DSFLMYSDDV LRSPSGSQR P SVSDDTGCGW KFEPLLGEEL DLRRVTWRLP
 PELIPRLSAS SGRSSDAEAP HGPPDDGGAG GKGGSLPRSA TPGPPGEHLV NGRMDFAFPG

STNSLHRMTT TSAAAYGTHL SPHVPHRVLS TSSTLTRDYN SLTRSEHSLS TTLPRDYSTL
TSVSSHDSRL TAGVPDTPTR LVFSALGPTS LRVSWQEPRC ERPLQGYSTVE YQLLNGGELH
RLNIPNPAQT SVVVEDLLPN HSYVFRVRAQ SQEGWGRERE GVITIESQVH PQSPLCPLPG
SAFTLSTPSA PGPLVFTALS PDSLQLSWER PRRPNGDIVG YLVTCEMAQG GGPATAFRVD
GDSPESTRLV PGLSENVPIK FKVQARTTEG FGPEREGIIT IESQDGGPFP QLGSRAGLFQ
HPLQSEYSSI TTTHTSATEP FLVDGLTLGA QHLEAGGSLT RHVTQEFVSR TLTTSGTLST
HMDQQFFQT

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.
- Human ITGB4 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:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step

Product Details

through size exclusion chromatography. 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: Integrin beta 4 (ITGB4)

Alternative Name: [ITGB4 \(ITGB4 Products\)](#)

Background: Integrin alpha-6/beta-4 is a receptor for laminin. Plays a critical structural role in the hemidesmosome of epithelial cells. Is required for the regulation of keratinocyte polarity and motility. ITGA6:ITGB4 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGA6:ITGB4 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:22351760). {ECO:0000269|PubMed:12482924, ECO:0000269|PubMed:19403692, ECO:0000269|PubMed:20682778, ECO:0000269|PubMed:22351760}.

Molecular Weight: 121.1 kDa Including tag.

UniProt: [P16144](#)

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: 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