



[Go to Product page](#)

Datasheet for ABIN3093162  
**ITGA2 Protein (AA 30-1132) (His tag)**

### Overview

Quantity:	1 mg
Target:	ITGA2
Protein Characteristics:	AA 30-1132
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ITGA2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence: YNVLPEAKI FSGPSSEQFG YAVQQFINPK GNWLLVGSPW SGFPENRMGD VYKCPVDLST  
ATCEKLNLT STSIPNVTEM KTNMSLGLIL TRNMGTGGFL TCGPLWAQQC GNQYYTTGVC  
SDISPDFQLS ASFSPATQPC PSLIDVVVVV DESNSIYPWD AVKNFLEKQV QGLDIGPTKT  
QVGLIQYANN PRVVFNLNTY KTKKEEMIVAT SQT SQYGGDL TNTFGAIQYA RKYAYSAASG  
GRRSATKVMV VVTDGESHG SMLKAVIDQC NHDNLRFGI AVLGYLNRNA LDTKNLIKEI  
KAIASIPTE YFFNVSDEAA LLEKAGTLGE QIFSIEGTQV GGDNFQMEMS QVGFSAADYSS  
QNDILMLGAV GAFGWSGTIV QKTSHGHLIF PKQAFDQILQ DRNHSSYLYG SVAAISTGES  
THFVAGAPRA NYTGQIVLYS VNENGNITVI QAHRGDQIGS YFGSVLCSVD VDKDTITDVL  
LVGAPMYMSD LKKEEGRVYL FTIKKGILGQ HQFLEGPEGI ENTRFGSAIA ALSDINMDGF  
NDVIVGSPLE NQNSGAVYIY NGHQGTIRTK YSQKILGSDG AFRSHLQYFG RSLDGYGDLN  
GDSITDVSIG AFGQVVQLWS QSIADVAIEA SFTPEKITLV NKNAQIILKL CFSAKFRPTK  
QNNQVAIVYN ITLDADGFSS RVTSRGLFKE NNERCLQKNM VVNQAQSCPE HIIYIQEPSD

VVNSLDRVD ISLENPSTSP ALEAYSETAK VFSIPFHKDC GEDGLCISDL VLDVRQIPAA  
QEQPFIIVSNQ NKRLTFSVTL KNKRESAYNT GIVVDFSENL FFASFSLPVD GTEVTCQVAA  
SQKSVACDVG YPALKREQQV TFTINDFNL QNLQNQASLS FQALSESQEE NKADNLVNLK  
IPLLYDAEIH LTRSTNINFY EISSDGNVPS IVHSFEDVGP KFIFSLKVTT GSVPVSMATV IHIHQYTK  
KNPLMYLTGV QTDKAGDISC NADINPLKIG QTSSSVSFKS ENFRHTKELN CRTASCSNVT  
CWLKDVHMKG EYFVNVTTTRI WNGTFASSTF QTVQLTAAAE INTYNPEIYV IEDNTVTIPL  
MIMKPDEKAE VPT

**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 ITGA2 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

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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

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Target: ITGA2

Alternative Name: ITGA2 ([ITGA2 Products](#))

Background: Integrin alpha-2/beta-1 is a receptor for laminin, collagen, collagen C-propeptides, fibronectin and E-cadherin. It recognizes the proline-hydroxylated sequence G-F-P-G-E-R in collagen. It is responsible for adhesion of platelets and other cells to collagens, modulation of collagen and collagenase gene expression, force generation and organization of newly synthesized extracellular matrix., (Microbial infection) Integrin ITGA2:ITGB1 acts as a receptor for human rotavirus A (PubMed:12941907). Integrin ITGA2:ITGB1 acts as a receptor for human echoviruses 1 and 8 (PubMed:8411387). {ECO:0000269|PubMed:12941907, ECO:0000269|PubMed:8411387}.

Molecular Weight: 121.9 kDa Including tag.

UniProt: [P17301](#)

Pathways: [CXCR4-mediated Signaling Events](#), [Smooth Muscle Cell Migration](#), [Integrin Complex](#)

## Application Details

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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

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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)