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Datasheet for ABIN3114738

ITGA7 Protein (AA 34-955) (rho-1D4 tag)

1 Image

Overview

Quantity:	1 mg
Target:	ITGA7
Protein Characteristics:	AA 34-955
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ITGA7 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: FNLDVMGALR KEGEPGSLFG FSVALHRQLQ PRPQSWLLVG APQALALPGQ QANRTGGLFA
CPLSLEETDC YRVDIDQGAD MQKESKENQW LGVSVRSQGP GGIKIVTCAHR YEARQRVDQI
LETRDMIGRC FVLSQDLAIR DELDGGGEWK FCEGRPQGHEQ FGFCQQGTAA AFSPDSHYLL
FGAPGTYNWK GTARVELCAQ GSADLAHLDD GPYEAGGEKE QDPRILPVPA NSYFGLLFVT
NIDSSDPDQL VYKTLDPADR LPGPAGDLAL NSYLGFSDS GKGLVRAEEL SFVAGAPRAN
HKGAVVILRK DSASRLPEV MLSEGERLTSG FGYSLAVADL NSDGWPDIV GAPYFFERQE
ELGGAVYVYL NQGGHWAGIS PLRLCGSPDS MFGISLAVLG DLNQDGFDPDI AVGAPFDGDG
KVFIYHGSSL GVVAKPSQVL EGEAVGIKSF GYSLSGSLDM DGNQYPDLLV GSLADTAVLF
RARPILHVSH EVSIAPRSID LEQPNCAGGH SVCVDLRVCF SYIAVPSSYS PTVALDYVLD
ADTDRRLRGQ VPRVTFLSRN LEEPKHQASG TVWLKHQHDR VCGDAMFQLQ ENVKDKLRAI
VVTLSYSLQT PRLRRQAPGQ GLPPVAPILN AHQPSTQRAE IHFLKQGCGE DKICQSNLQL
VRARFCTRVS DTEFQPLPMD VDGTTALFAL SGQPVIGLEL MVTNLPSPDA QPQADGDDAH

EAQLLVMLPD SLHYSGVRAL DPAEKPLCLS NENASHVECE LGNPMKRGQAQ VTFYLILSTS
GSIETTELE VELLATISE QELHPVSARA RVFIELPLSI AGMAIPQQLF FSGVVRGERA
MQSERDVGSK VKYEVTVSNQ GQSLRTLGSA FLNIMWPHEI ANGKWLLYPM QVELEGGQGP
GQKGLCSPRP NILHLDVDSR DR

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 ITGA7 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 fractioned 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

Product Details

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: ITGA7

Alternative Name: ITGA7 ([ITGA7 Products](#))

Background: Integrin alpha-7/beta-1 is the primary laminin receptor on skeletal myoblasts and adult myofibers. During myogenic differentiation, it may induce changes in the shape and mobility of myoblasts, and facilitate their localization at laminin-rich sites of secondary fiber formation. It is involved in the maintenance of the myofibers cytoarchitecture as well as for their anchorage, viability and functional integrity. Isoform Alpha-7X2B and isoform Alpha-7X1B promote myoblast migration on laminin 1 and laminin 2/4, but isoform Alpha-7X1B is less active on laminin 1 (In vitro). Acts as Schwann cell receptor for laminin-2. Acts as a receptor of COMP and mediates its effect on vascular smooth muscle cells (VSMCs) maturation (By similarity). Required to promote contractile phenotype acquisition in differentiated airway smooth muscle (ASM) cells. {ECO:0000250, ECO:0000269|PubMed:10694445, ECO:0000269|PubMed:17641293, ECO:0000269|PubMed:9307969}.

Molecular Weight: 101.3 kDa Including tag.

UniProt: [Q13683](#)

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

Application Details

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