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Datasheet for ABIN3112977

CD31 Protein (AA 28-738) (rho-1D4 tag)

Overview

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| Quantity: | 1 mg |
| Target: | CD31 (PECAM1) |
| Protein Characteristics: | AA 28-738 |
| Origin: | Human |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This CD31 protein is labelled with rho-1D4 tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys) |

Product Details

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| Sequence: | <p>QENSFTINSV DMKSLPDWTV QNGKNLTLQC FADVSTTSHV KPQHQMIFYK DDVLFYNISS</p> <p>MKSTESYFIP EVRIYDSGT Y KCTVIVNKE KTTAEYQLLV EGVPSRVTL DKKEAIQGGI</p> <p>VRVNCSPVEE KAPIHFTIEK LELNEKMKVL KREKNSRDQN FVILEFPVEE QDRVLSFRCQ</p> <p>ARIISGIHMQ TSESTKSELV TVTESFSTPK FHISPTGMIM EGAQLHIKCT IQVTHLAQEF</p> <p>PEIIQKDKA IVAHNRHGNK AVYSVMAMVE HSGNYTCKVE SSRISKVSSI VVNITELFSK</p> <p>PELESSFTHL DQGERLNLSC SIPGAPPANF TIQKEDTIVS QTQDFTKIAS KSDSGTYICT</p> <p>AGIDKVVKKS NTVQIVVCEM LSQPRISYDA QFEVIKGQTI EVRCESISGT LPISYQLLKT</p> <p>SKVLENSTKN SNDPAVFKDN PTEDVEYQCV ADNCHSHAKM LSEVLRVKVI APVDEVQISI</p> <p>LSSKVESGE DIVLQCAVNE GSGPITYKFY REKEGKPFYQ MTSNATQAFW TKQKASKEQE</p> <p>GEYYCTAFNR ANHASSVPRS KILTVRVILA PWKKGLIAVV IIGVIALLI IAAKCYFLRK</p> <p>AKAKQMPVEM SRPAVPLLNS NNEKMSPNM EANSYGHND DVRNHAMKPI NDNKEPLNSD</p> <p>VQYTEVQVSS AESHKDLGKK DTETVYSEVR KAVPDVESR YSRTEGSLDG T</p> |
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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 PECAM1 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 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

Product Details

Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

Target Details

Target: CD31 (PECAM1)

Alternative Name: PECAM1 ([PECAM1 Products](#))

Background: Induces susceptibility to atherosclerosis (By similarity). Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions. Tyr-690 plays a critical role in TEM and is required for efficient trafficking of PECAM1 to and from the lateral border recycling compartment (LBRC) and is also essential for the LBRC membrane to be targeted around migrating leukocytes. Prevents phagocyte ingestion of closely apposed viable cells by transmitting 'detachment' signals, and changes function on apoptosis, promoting tethering of dying cells to phagocytes (the encounter of a viable cell with a phagocyte via the homophilic interaction of PECAM1 on both cell surfaces leads to the viable cell's active repulsion from the phagocyte. During apoptosis, the inside-out signaling of PECAM1 is somehow disabled so that the apoptotic cell does not actively reject the phagocyte anymore. The lack of this repulsion signal together with the interaction of the eat-me signals and their respective receptors causes the attachment of the apoptotic cell to the phagocyte, thus triggering the process of engulfment). Isoform Delta15 is unable to protect against apoptosis. Modulates BDKRB2 activation. Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in human umbilical cord vein cells (HUVEC). {ECO:0000250, ECO:0000269|PubMed:12110892, ECO:0000269|PubMed:19342684}.

Molecular Weight: 80.8 kDa Including tag.

UniProt: [P16284](#)

Pathways: [Regulation of Actin Filament Polymerization](#)

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

Application Details

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) |