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Datasheet for ABIN3135416
CD166 Protein (AA 28-583) (rho-1D4 tag)

Overview

Quantity:	1 mg
Target:	CD166 (ALCAM)
Protein Characteristics:	AA 28-583
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CD166 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: WYTVNSAYGD TIVMPCRLDV PQNLMFGKWK YEKPDGSPVF IAFRSSTKKS VQYDDVPEYK
DRLSLSENYT LSIANAKISD EKRFVCMLVT EDNVFEAPTL VKVFKQPSKP EIVNKAPFLE
TDQLKKGDC ISRDSYPDGN ITWYRNGKVL QPVEGEVAIL FKKEIDPGTQ LYTVTSSLEY
KTTSDIQMP FTCSVTYYGP SGQKTIYSEQ EIFDIYYPTE QVTIQVLPPK NAIKEGDNIT
LQCLGNGNPP PEEFMFYLPQ QPEGIRSSNT YTLTDVRRNA TGDYKCSLID KRNMAASTTI
TVHYLDLSLN PSGEVTKQIG DTLPVSTIS ASRNATVWWM KDNIRLRSSP SFSSLHYQDA
GNYVCETALQ EVEGLKKRES LTLIVEGKPQ IKMTKKTDPG GLSKTIICHV EGFPKPAIHW
TITGSGSVIN QTEESPYING RYYSKIIISP EENVTLTCTA ENQLERTVNS LNVSAISIPE HDEADDISDE
NREKVNDAQK LIVGIVVGLL LAALVAGVVY WLYMKKSKTA SKHVNKDLGN MEENKKLEEN
NHKTEA

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Product Details

Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Mouse Alcam 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). <p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p>
Purification:	<p>Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none">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
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	CD166 (ALCAM)
Alternative Name:	Alcam (ALCAM Products)
Background:	<p>Cell adhesion molecule that mediates both heterotypic cell-cell contacts via its interaction with CD6, as well as homotypic cell-cell contacts. Promotes T-cell activation and proliferation via its interactions with CD6 (By similarity). Contributes to the formation and maturation of the immunological synapse via its interactions with CD6 (By similarity). Mediates homotypic interactions with cells that express ALCAM (PubMed:24740813). Mediates attachment of dendritic cells onto endothelial cells via homotypic interaction. Inhibits endothelial cell migration and promotes endothelial tube formation via homotypic interactions (PubMed:23169771). Required for normal organization of the lymph vessel network (PubMed:23169771). Required for normal hematopoietic stem cell engraftment in the bone marrow (PubMed:24740813). Plays a role in hematopoiesis, required for normal numbers of hematopoietic stem cells in bone marrow (PubMed:25730656). Promotes in vitro osteoblast proliferation and differentiation (PubMed:25730656). Promotes neurite extension, axon growth and axon guidance, axons grow preferentially on surfaces that contain ALCAM (By similarity). Mediates outgrowth and pathfinding for retinal ganglion cell axons (PubMed:15345243).</p> <p>{ECO:0000250 UniProtKB:P42292, ECO:0000250 UniProtKB:Q13740, ECO:0000269 PubMed:15345243, ECO:0000269 PubMed:23169771}.</p>
Molecular Weight:	63.5 kDa Including tag.
UniProt:	Q61490

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 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
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Handling

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)