

Datasheet for ABIN3091384

## CD166 Protein (AA 28-527) (His tag)



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### Overview

Quantity:	1 mg
Target:	CD166 (ALCAM)
Protein Characteristics:	AA 28-527
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CD166 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence: WYTVNSAYGD TIIIPCRLDV PQNLMFGKWK YEKPDGSPVF IAFRSSTKKS VQYDDVPEYK  
 DRLNLSENYT LSISNARISD EKRFVCMMLVT EDNVFEAPTI VKVFKQPSKP EIVSKALFLE  
 TEQLKKLGDC ISEDSYPDGN ITWYRNGKVL HPLEGAVVII FKKEMDPVTQ LYTMTSTLEY  
 KTTKADIQMP FTCSVTTYGP SGQKTIHSEQ AVFDIYYPTE QVTIQVLPPK NAIKEGDNIT  
 LKCLGNGNPP PEEFLFYLPQ QPEGIRSSNT YTLTDVRRNA TGDYKCSLID KKSMAIASTAI  
 TVHYLDLSLN PSGEVTRQIG DALPVSTCTIS ASRNATVVWM KDNIRLRSSP SFSSLHYQDA  
 GNYVCETALQ EVEGLKKRES LTLIVEGKPQ IKMTKKTDPS GLSKTIICHV EGFPKPAIQW  
 TITGSGSVIN QTEESPYING RYYSKIIISP EENVTLTCTA ENQLERTVNS LNVSAISIPE HDEADEISDE  
 NREKVNDQAK

**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.

## Product Details

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- Human 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).

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 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:	CD166 (ALCAM)
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## Target Details

Alternative Name:	ALCAM ( <a href="#">ALCAM Products</a> )
Background:	<p>Cell adhesion molecule that mediates both heterotypic cell-cell contacts via its interaction with CD6, as well as homotypic cell-cell contacts (PubMed:7760007, PubMed:15496415, PubMed:15048703, PubMed:16352806, PubMed:23169771, PubMed:24945728). Promotes T-cell activation and proliferation via its interactions with CD6 (PubMed:15048703, PubMed:16352806, PubMed:24945728). Contributes to the formation and maturation of the immunological synapse via its interactions with CD6 (PubMed:15294938, PubMed:16352806). Mediates homotypic interactions with cells that express ALCAM (PubMed:15496415, PubMed:16352806). Required for normal hematopoietic stem cell engraftment in the bone marrow (PubMed:24740813). Mediates attachment of dendritic cells onto endothelial cells via homotypic interaction (PubMed:23169771). Inhibits endothelial cell migration and promotes endothelial tube formation via homotypic interactions (PubMed:15496415, PubMed:23169771). Required for normal organization of the lymph vessel network. Required for normal hematopoietic stem cell engraftment in the bone marrow. Plays a role in hematopoiesis, required for normal numbers of hematopoietic stem cells in bone marrow. Promotes in vitro osteoblast proliferation and differentiation (By similarity). Promotes neurite extension, axon growth and axon guidance, axons grow preferentially on surfaces that contain ALCAM. Mediates outgrowth and pathfinding for retinal ganglion cell axons (By similarity). {ECO:0000250 UniProtKB:P42292, ECO:0000269 PubMed:15048703, ECO:0000269 PubMed:15294938, ECO:0000269 PubMed:15496415, ECO:0000269 PubMed:16352806, ECO:0000269 PubMed:24945728, ECO:0000269 PubMed:7760007}., Isoform 3: Inhibits activities of membrane-bound isoforms by competing for the same interaction partners. Inhibits cell attachment via homotypic interactions. Promotes endothelial cell migration. Inhibits endothelial cell tube formation. {ECO:0000269 PubMed:15496415}.</p>
Molecular Weight:	57.0 kDa Including tag.
UniProt:	<a href="#">Q13740</a>

## 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

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)