

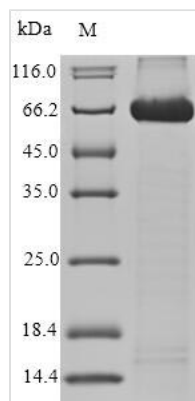


Recombinant Human CD166 antigen (ALCAM), partial

Product Code	CSB-EP614444HU
Relevance	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. Contributes to the formation and maturation of the immunological synapse via its interactions with CD6. Mediates homotypic interactions with cells that express ALCAM. Required for normal hematopoietic stem cell engraftment in the bone marrow. Mediates attachment of dendritic cells onto endothelial cells via homotypic interaction. Inhibits endothelial cell migration and promotes endothelial tube formation via homotypic interactions. 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. 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
Abbreviation	Recombinant Human ALCAM protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q13740
Alias	Activated leukocyte cell adhesion molecule CD_antigen: CD166
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	WYTVNSAYGDTIIIPCRLDVPQNLMTFGKWKYEKPDGSPVFIAFRSSTKKSQY DDVPEYKDRLNLSNYTLNISNARISDEKRFVCMVLTEDNVFEAPTIVKVKQP SKPEIVSKALFLETEQLKKLGDCISEDSPDGNITWYRNGKVLHPLEGAVVIFK KEMDPVTQLYTMTSTLEYKTTKADIQMPFTCSVTYYGPSGQKTIHSEQAVFDIY YPTEQVTIQVLPPKNAIKEGDNITLKCLGNGNPPPEEFLFYLPQGQPEGIRSSNTY TLTDVRRNATGDYKCSLIDKKSMASTAITVHYLDLSLNPSGEVTRQIGDALPVS CTISASRNATVVWMKDNIRLRSSPSFSSLHYQDAGNYVCETALQEVEGLKKRE SLTLIVEGKPKIKMTKKTDPSGLSKTIICHVEGFPAIQWTITGSGSVINQTEES PYINGRYYSKIIISPEENVTLTCTAENQLERTVNSLNVSAISIEHDEADEISD
Research Area	Immunology
Source	E.coli
Target Names	ALCAM

Protein Names	Recommended name: CD166 antigen Alternative name(s): Activated leukocyte cell adhesion molecule CD_antigen= CD166
Expression Region	28-516aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	70.8kDa
Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human ALCAM protein is made through genetic engineering, also called gene splicing or recombinant DNA technology. By putting Human ALCAM genes into the genetic material of the E.coli system. These microorganisms can be used as factories or producers to make proteins for medical, academic and research uses. DNA to be manipulated it must be placed within a “transport vehicle” in which proteins may be produced from the genetic code of the DNA. The host cells used for Human ALCAM protein synthesis are E.coli cells, the whole production processes include isolation of ALCAM gene, amplification of ALCAM gene, cloning, ALCAM gene selection, and expression, and the ALCAM protein purification, the vector contains N-terminal 6xHis-SUMO tag in addition to the specific DNA sequence, this facilitates the purification of the recombinant protein and it’s finally detected with a purity of 90%+ by SDS-PAGE.

ALCAM, also called CD166, is a cell-cell adhesion molecule that engages in heterotypic interactions via the ligation to CD6 on T cells thus acting in homophilic adhesion complexes between epithelial cells and that acts as a cell surface marker for a group of hematopoietic progenitor cells, multiple mesenchymal stem cells, and cancer stem cells. CD166 is upregulated and considered a valuable prognostic marker of disease progression and dismal survival in several categories of epithelial cancers such as colorectal carcinoma, breast cancer, and pancreatic cancer. Studies have shown that CD166 can play an anti-apoptotic role by enhancing the function of YAP and exert its pro-carcinogenic role by inhibiting FOXO proteins.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the



contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.