

## CD166/ALCAM Active Protein | ALCAM active protein

CD166/ALCAM Protein, Mouse, Recombinant (His & hFc Tag)

CATALOG #  
**AAA258114**

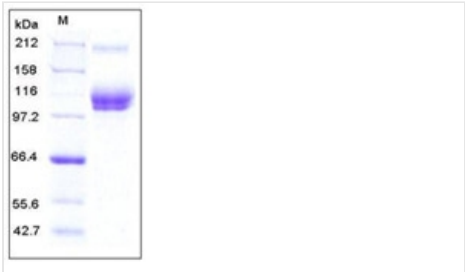
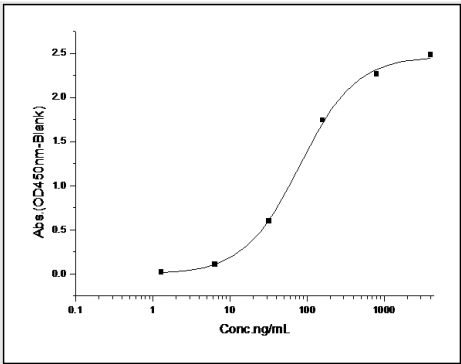
HOST  
**HEK293 Cells**

### PRODUCT SYNONYMS

CD166/ALCAM; CD166/ALCAM Protein; Mouse; Recombinant (His & hFc Tag); Mouse ALCAM/CD166 Protein (His & Fc Tag); AI853494 Protein; BEN Protein; CD166 Protein; DM-GRASP Protein; MuSC Protein; SC1 Protein; activated leukocyte cell adhesion molecule; ALCAM active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | HEK293 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Purity/Purification     | >95% as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Form/Format             | Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.                                                                                                                                                                                                                                                                                                      |
| Sequence                | Met1-Lys52 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Species                 | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Endotoxin               | <1.0EU per ug of the protein as determined by the LAL method                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Predicted N Terminal    | Trp 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tag                     | C-human IgG1-Fc & His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Protein Construction    | A DNA sequence encoding the extracellular domain (Met 1-Lys 527) of mouse ALCAM (NP_033785.1) precursor was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.                                                                                                                                                                                                                                                                                                                   |
| Reconstitution          | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                                                                                                                                                                                                                                                                                                                                                         |
| Activity                | Immobilized mouse CD6-His at 10ug/ml (100uL/well) can bind mouse ALCAM-Fc2h. The EC50 of mouse ALCAM-Fc2h is 0.12-0.28ug/ml.                                                                                                                                                                                                                                                                                                                                                                                            |
| Preparation and Storage | <p>Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid.</p> <p>They are shipped out with blue ice.</p> |



SDS-PAGE

**Application Data**  
Immobilized mouse CD6-His at 10 ug/ml (100 ul/well) can bind mouse ALCAM-Fc2h, The EC50 of mouse ALCAM-Fc2h is 0.12-0.28 ug/ml.

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for ALCAM active protein | Background: Activated leukocyte cell adhesion molecule (ALCAM)/Cluster of differentiation (CD166) is a type I transmembrane cell adhesion molecule belonging to the Ig superfamily and a ligand for CD6 that is expressed on T lymphocytes. The extracellular domain of ALCAM contains five Ig-like domains (three Ig-like C2-type domains and two Ig-like V-type domains), of which the amino-terminal V1 domain is essential for ligand binding and ALCAM-mediated cell aggregation. ALCAM mediates both heterophilic (ALCAM-CD6) and homophilic (ALCAM-ALCAM) cell-cell interactions. ALCAM/CD6 interaction plays a role in T cell development and T cell regulation, as well as in the binding of T- and B-cells to activated leukocytes. Recently, homophilic (ALCAM-ALCAM) adhesion was shown to play important roles in tight cell-to-cell interaction and regulation of stem cell differentiation. While expressed in a wide variety of tissues, ALCAM is usually restricted to subsets of cells involved in dynamic growth and/or migration, including neural development, branching organ development, hematopoiesis, immune response and tumor progression. And CD166 is regarded as a potential novel breast cancer indicator and therapeutic target. |
| References                                           | Swart GW. (2002) Activated leukocyte cell adhesion molecule (CD166/ALCAM): developmental and mechanistic aspects of cell clustering and cell migration. Eur J Cell Biol. 81(6): 313-21.Fujiwara H, et al. (2003) Human blastocysts and endometrial epithelial cells express activated leukocyte cell adhesion molecule (ALCAM/CD166). J Clin Endocrinol Metab. 88(7): 3437-43.Jeziarska A, et al. (2006) ALCAM/CD166 protects breast cancer cells against apoptosis and autophagy. Med Sci Monit. 12(8): BR263-73.Kahlert C, et al. (2009) Increased expression of ALCAM/CD166 in pancreatic cancer is an independent prognostic marker for poor survival and early tumour relapse. Br J Cancer. 101(3): 457-64.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

NCBI AND UNIPROT INFORMATION

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| NCBI GI #                        | 31791059                                   |
| NCBI GeneID                      | 11658                                      |
| NCBI Accession #                 | NP_033785.1                                |
| NCBI GenBank Nucleotide #        | NM_009655.2                                |
| UniProt Accession #              | Q61490; O70136; Q8CDA5; Q8R2T0             |
| Molecular Weight                 | 65,092 Da                                  |
| NCBI Official Full Name          | CD166 antigen                              |
| NCBI Official Synonym Full Names | activated leukocyte cell adhesion molecule |
| NCBI Official Symbol             | Alcam                                      |
| NCBI Official Synonym Symbols    | BEN; SC1; MuSC; CD166; AI853494; DM-GRASP  |
| NCBI Protein Information         | CD166 antigen                              |
| UniProt Protein Name             | CD166 antigen                              |

|                    |             |
|--------------------|-------------|
| UniProt Gene Name  | Alcam       |
| UniProt Entry Name | CD166_MOUSE |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://www.aaabiotech.com/hek293-active-protein/cd166-alcam/258114>