

# ALCAM (H-108): sc-25624

## BACKGROUND

Activated leukocyte cell adhesion molecule (ALCAM), expressed on activated leukocytes T cells, B cells and monocytes, is a member of the immunoglobulin superfamily (IgSF) and identified as a CD6 ligand. CD6 is a type I membrane protein in the scavenger receptor cysteine rich protein superfamily that acts in T cell adhesion and costimulation. ALCAM mediates thymocyte-thymic epithelial cell adhesion via homophilic (ALCAM-ALCAM) and heterophilic (ALCAM-CD6) interactions involving a previously undescribed protein-protein interaction between a member of the scavenger receptor cysteine rich protein superfamily and the immunoglobulin superfamily.

## REFERENCES

1. Bowen, M.A., et al. 1995. Cloning, mapping, and characterization of activated leukocyte-cell adhesion molecule (ALCAM), a CD6 ligand. *J. Exp. Med.* 181: 2213-2220.
2. Skonier, J.E., et al. 1996. Recognition of diverse proteins by members of the immunoglobulin superfamily: delineation of the receptor binding site in the human CD6 ligand ALCAM. *Biochemistry* 35: 12287-12291.
3. Bowen, M.A., et al. 1997. Structure and chromosomal location of the human CD6 gene: detection of five human CD6 isoforms. *J. Immunol.* 158: 1149-1156.
4. Bowen, M.A., et al. 1997. Characterization of mouse ALCAM (CD166): the CD6-binding domain is conserved in different homologs and mediates cross-species binding. *Eur. J. Immunol.* 27: 1469-1478.
5. Cortes, F., et al. 1999. HCA, an immunoglobulin-like adhesion molecule present on the earliest human hematopoietic precursor cells, is also expressed by stromal cells in blood-forming tissues. *Blood* 93: 826-837.
6. Bowen, M.A., et al. 1999. Adhesion molecules, their receptors and their regulation: analysis of CD6-activated leukocyte cell adhesion molecule (ALCAM/CD166) interactions. *Transplant. Proc.* 31: 795-796.

## CHROMOSOMAL LOCATION

Genetic locus: ALCAM (human) mapping to 3q13.11; Alcam (mouse) mapping to 16 B5.

## SOURCE

ALCAM (H-108) is a rabbit polyclonal antibody raised against amino acids 28-135 mapping near the N-terminus of ALCAM of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

ALCAM (H-108) is recommended for detection of ALCAM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

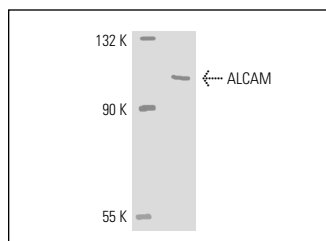
ALCAM (H-108) is also recommended for detection of ALCAM in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ALCAM siRNA (h): sc-43023, ALCAM siRNA (m): sc-43024, ALCAM shRNA Plasmid (h): sc-43023-SH, ALCAM shRNA Plasmid (m): sc-43024-SH, ALCAM shRNA (h) Lentiviral Particles: sc-43023-V and ALCAM shRNA (m) Lentiviral Particles: sc-43024-V.

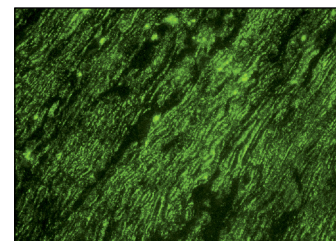
Molecular Weight of ALCAM: 100-105 kDa.

Positive Controls: Daudi cell lysate: sc-2415 or SK-N-SH cell lysate: sc-2410.

## DATA



ALCAM (H-108): sc-25624. Western blot analysis of ALCAM expression in Daudi whole cell lysate.



ALCAM (H-108): sc-25624. Immunofluorescence staining of normal mouse heart frozen section showing membrane and cytoplasmic staining.

## SELECT PRODUCT CITATIONS

1. Cayrol, R., et al. 2008. Activated leukocyte cell adhesion molecule promotes leukocyte trafficking into the central nervous system. *Nat. Immunol.* 9: 137-145.
2. Takagi, M., et al. 2008. Correlation between cell morphology and aggrecan gene expression level during differentiation from mesenchymal stem cells to chondrocytes. *Biotechnol. Lett.* 30: 1189-1195.
3. Ozbey, O., et al. 2009. The effect of systemic corticosteroid treatment on the immunolocalisation of Notch-1, Delta, CD105 and CD166 in rat articular cartilage. *Acta Histochem.* 112: 424-431.
4. Ou, G., et al. 2010. Fibroblast growth factor-2 stimulates the proliferation of mesenchyme-derived progenitor cells from aging mouse and human bone. *J. Gerontol. A Biol. Sci. Med. Sci.* 65: 1051-1059.
5. Yao, H., et al. 2011. Cocaine hijacks  $\alpha 1$  receptor to initiate induction of activated leukocyte cell adhesion molecule: implication for increased monocyte adhesion and migration in the CNS. *J. Neurosci.* 31: 5942-5955.
6. Yao, H., et al. 2012. Rodent models of HAND and drug abuse: exogenous administration of viral protein(s) and cocaine. *J. Neuroimmune Pharmacol.* 7: 341-351.