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# AlCAM Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1748a

## Product Information

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| **Application** | WB, IHC, E |
| **Primary Accession** | Q13740 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 5B3 |
| **Isotype** | IgG1 |
| **Calculated MW** | 65102 |
| **Description** | This gene encodes activated leukocyte cell adhesion molecule (ALCAM), also known as CD166 (cluster of differentiation 166), which is a member of a subfamily of immunoglobulin receptors with five immunoglobulin-like domains (VVC2C2C2) in the extracellular domain. This protein binds to T-cell differentiation antigene CD6, and is implicated in the processes of cell adhesion and migration. Multiple alternatively spliced transcript variants encoding different isoforms have been found. |
| **Immunogen** | Purified recombinant fragment of human AlCAM (AA: 405-524) expressed in E. Coli. |
| **Formulation** | Purified antibody in PBS with 0.05% sodium azide |

## Additional Information

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| **Gene ID** | 214 |
| **Other Names** | CD166 antigen, Activated leukocyte cell adhesion molecule, CD166, ALCAM, MEMD |
| **Dilution** | WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~1/10000 |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | AlCAM Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | ALCAM |

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| **Synonyms** | MEMD {ECO:0000303\|PubMed:9502422} |
| **Function** | Cell adhesion molecule that mediates both heterotypic cell- cell contacts via its interaction with CD6, as well as homotypic cell- cell contacts (PubMed:15048703, PubMed:15496415, PubMed:16352806, PubMed:23169771, PubMed:24945728, PubMed:7760007). 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). Acts as a ligand for the LILRB4 receptor, enhancing LILRB4-mediated inhibition of T cell proliferation (PubMed:29263213). 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). |
| **Cellular Location** | Cell membrane; Single-pass type I membrane protein. Cell projection, axon {ECO:0000250\|UniProtKB:Q61490}. Cell projection, dendrite {ECO:0000250\|UniProtKB:Q61490}. Note=Detected at the immunological synapse, i.e, at the contact zone between antigen-presenting dendritic cells and T-cells (PubMed:15294938, PubMed:16352806). Colocalizes with CD6 and the TCR/CD3 complex at the immunological synapse (PubMed:15294938). |
| **Tissue Location** | Detected on hematopoietic stem cells derived from umbilical cord blood (PubMed:24740813). Detected on lymph vessel endothelial cells, skin and tonsil (PubMed:23169771). Detected on peripheral blood monocytes (PubMed:15048703). Detected on monocyte- derived dendritic cells (at protein level) (PubMed:16352806). Detected at low levels in spleen, placenta, liver (PubMed:9502422). Expressed by activated T-cells, B-cells, monocytes and thymic epithelial cells (PubMed:7760007). Isoform 1 and isoform 3 are detected in vein and artery endothelial cells, astrocytes, keratinocytes and artery smooth muscle cells (PubMed:15496415). Expressed by neurons in the brain Restricted expression in tumor cell lines. Detected in highly metastasizing melanoma cell lines (PubMed:9502422) |

## References

1.Vascul Pharmacol. 2011 Mar-Jun;54(3-6):93-9.2.Int J Gynecol Cancer. 2011 Apr;21(3):523-8.

## Images

Figure 1: Western blot analysis using AlCAM mAb against human AlCAM recombinant protein. (Expected MW is 26.3 kDa)

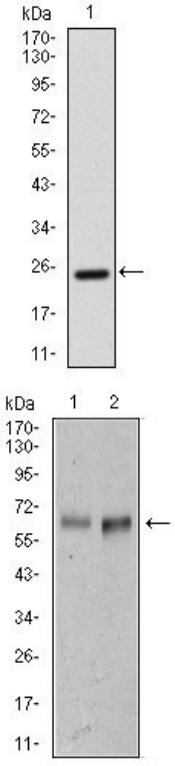



Figure 2: Western blot analysis using AlCAM mouse mAb against L1210 (1) cell lysate, and Mouse spleen (2) tissue lysate.

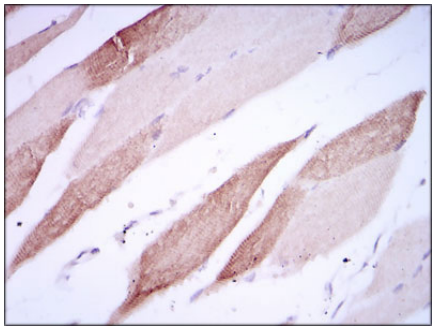


Figure 3: Immunohistochemical analysis of paraffin-embedded striated muscle tissues using AlCAM mouse mAb with DAB staining.

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