SANTA CRUZ BIOTECHNOLOGY, INC.

ALCAM (B-6): sc-74558

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

ALCAM (B-6) is a mouse monoclonal antibody raised against amino acids 28-135 mapping near the N-terminus of ALCAM of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ALCAM (B-6) is available conjugated to agarose (sc-74558 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74558 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74558 PE), fluorescein (sc-74558 FITC), Alexa Fluor® 488 (sc-74558 AF488), Alexa Fluor® 546 (sc-74558 AF546), Alexa Fluor® 594 (sc-74558 AF594) or Alexa Fluor® 647 (sc-74558 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74558 AF680) or Alexa Fluor® 790 (sc-74558 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ALCAM (B-6) is recommended for detection of ALCAM of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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: A549 cell lysate: sc-2413, HT-1080 whole cell lysate: sc-364183 or SK-N-SH cell lysate: sc-2410.

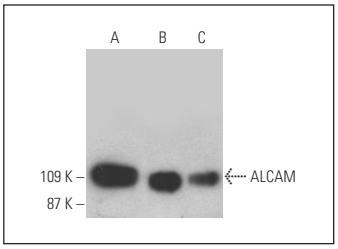
STORAGE

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

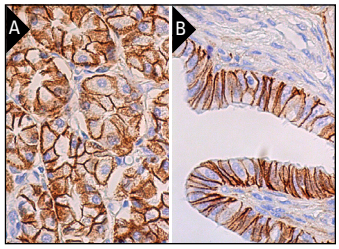
RESEARCH USE

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

DATA



ALCAM (B-6) HRP: sc-74558 HRP. Direct western blot analysis of ALCAM expression in SK-N-SH (**A**), A549 (**B**) and HT-1080 (**C**) whole cell lysates.



ALCAM (B-6): sc-74558. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach (**A**) and human fallopian tube (**B**) tissue showing membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Rauch, S.J., et al. 2011. Cholesterol induces apoptosis-associated loss of the activated leukocyte cell adhesion molecule (ALCAM) in human monocytes. Vascul. Pharmacol. 54: 93-99.
2. Lettini, G., et al. 2016. TRAP1 regulates stemness through Wnt/β-catenin pathway in human colorectal carcinoma. Cell Death Differ. 23: 1792-1803.
3. Varela-Eirín, M., et al. 2018. Targeting of chondrocyte plasticity via connexin43 modulation attenuates cellular senescence and fosters a pro-regenerative environment in osteoarthritis. Cell Death Dis. 9: 1166.
4. Radhakrishnan, S., et al. 2019. Effect of passaging on the stemness of infrapatellar fat pad-derived stem cells and potential role of nucleostemin as a prognostic marker of impaired stemness. Mol. Med. Rep. 20: 813-829.
5. Renard, H.F., et al. 2020. Endophilin-A3 and Galectin-8 control the clathrin-independent endocytosis of CD166. Nat. Commun. 11: 1457.
6. Qian, H., et al. 2020. Anti-human serum albumin autoantibody may be involved in the pathogenesis of autoimmune bullous skin diseases. FASEB J. 34: 8574-8595.
7. Varela-Eirín, M., et al. 2020. Senolytic activity of small molecular polyphenols from olive restores chondrocyte redifferentiation and promotes a pro-regenerative environment in osteoarthritis. Aging 12: 15882-15905.
8. Kim, S.H., et al. 2021. L-myc gene expression in canine fetal fibroblasts promotes self-renewal capacity but not tumor formation. Cells 10: 1980.
9. Lei, R., et al. 2022. A novel technology for home monitoring of lupus nephritis that tracks the pathogenic urine biomarker ALCAM. Front. Immunol. 13: 1044743.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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