

JAM-A (43): sc-135956

BACKGROUND

Junctional adhesion molecule (JAM) is a member of the immunoglobulin superfamily expressed in tight junctions of epithelial cells and endothelial cells. It is implicated in transendothelial migration of leukocytes. JAM is constitutively expressed on circulating monocytes, neutrophils, lymphocyte subsets and platelets. The JAM family consists of JAM-A, JAM-B and JAM-C, alternatively designated JAM-1, JAM-2 and JAM-3, respectively. JAM-A localizes with F-Actin at the cell-cell contacts and at the membrane ruffles. It is involved in cell to cell adhesion through homophilic interactions and plays a role in the organization of tight junctions and modulation of leukocyte extravasation. JAM-B interacts with discrete subsets of PBLs, suggesting that it may play a role in lymphocyte trafficking. JAM-B and JAM-C proteins are binding partners; JAM-C may be a functional JAM-B receptor. Specifically, JAM-B adheres to T cells through heterotypic interactions with JAM-C. The JAM-B/JAM-C interaction may play a role in T, NK and dendritic cellular inflammation.

REFERENCES

1. Martin-Padura, I., et al. 1998. Junctional adhesion molecule, a novel member of the immunoglobulin superfamily that distributes at intercellular junctions and modulates monocyte transmigration. *J. Cell Biol.* 142: 117-127.
2. Ozaki, H., et al. 1999. Cutting edge: combined treatment of TNF α and IFN- γ causes redistribution of junctional adhesion molecule in human endothelial cells. *J. Immunol.* 163: 553-557.
3. Ozaki, H., et al. 2000. Junctional adhesion molecule (JAM) is phosphorylated by protein kinase C upon platelet activation. *Biochem. Biophys. Res. Commun.* 276: 873-878.
4. Ebnert, K., et al. 2000. Junctional adhesion molecule interacts with the PDZ domain-containing proteins AF-6 and ZO-1. *J. Biol. Chem.* 275: 27979-27988.
5. Dejana, E., et al. 2000. The molecular organization of endothelial junctions and their functional role in vascular morphogenesis and permeability. *Int. J. Dev. Biol.* 44: 743-748.
6. Bazzoni, G., et al. 2000. Homophilic interaction of junctional adhesion molecule. *J. Biol. Chem.* 275: 30970-30976.

CHROMOSOMAL LOCATION

Genetic locus: F11R (human) mapping to 1q23.3.

SOURCE

JAM-A (43) is a mouse monoclonal antibody raised against amino acids 126-237 of JAM-A of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 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.

APPLICATIONS

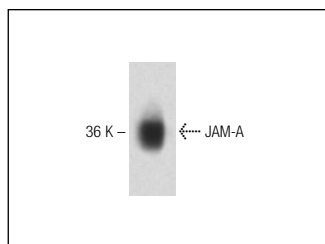
JAM-A (43) is recommended for detection of JAM-A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for JAM-A siRNA (h): sc-43139, JAM-A shRNA Plasmid (h): sc-43139-SH and JAM-A shRNA (h) Lentiviral Particles: sc-43139-V.

Molecular Weight of JAM-A: 36 kDa.

Positive Controls: human endothelial whole cell lysate, human platelet extract: sc-363773 or T84 whole cell lysate: sc-364797.

DATA



JAM-A (43): sc-135956. Western blot analysis of JAM-A expression in human endothelial whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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



See **JAM-A (J10.4): sc-53623** for JAM-A antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.