



## JAM-B (JJ073): sc-80131

### 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, lymphocytes 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

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2. Ozaki, H., et al. 1999. Cutting edge: combined treatment of TNF $\alpha$  and IFN- $\gamma$  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. Ebnat, 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.
7. Arrate, M.P., et al. 2001. Cloning of human junctional adhesion molecule 3 (JAM-3) and its identification as the JAM-2 counter-receptor. *J. Biol. Chem.* 276: 45826-45832.
8. Liang, T.W., et al. 2002. Vascular endothelial-junctional adhesion molecule (VE-JAM)/JAM-2 interacts with T, NK, and dendritic cells through JAM-3. *J. Immunol.* 168: 1618-1626.
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### CHROMOSOMAL LOCATION

Genetic locus: JAM2 (human) mapping to 21q21.2.

### RESEARCH USE

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

### SOURCE

JAM-B (JJ073) is a mouse monoclonal antibody raised against the extracellular domain of JAM-B of human origin.

### PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2b</sub> in 1.0 ml PBS with < 0.1% sodium azide and protein stabilizer.

Available azide-free for neutralization, sc-80131 L, 100  $\mu$ g/0.1 ml.

### APPLICATIONS

JAM-B (JJ073) is recommended for detection of JAM-B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for JAM-B siRNA (h): sc-43141, JAM-B shRNA Plasmid (h): sc-43141-SH and JAM-B shRNA (h) Lentiviral Particles: sc-43141-V.

Molecular Weight of JAM-B: 54 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

### STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.