

JAM4 (M-13): sc-103574

BACKGROUND

The junctional adhesion molecule (JAM) family are members of the immunoglobulin superfamily, which are specifically expressed in tight junctions of epithelial and endothelial cells. The JAM family consists of JAM1, JAM2, JAM3 and JAM4. JAM1 localizes with F-actin at the cell-cell contacts and at the membrane ruffles, but not at the stress fibers, and is involved in cell to cell, adhesion through homophilic interactions. JAM1 plays a role in the organization of tight junctions and modulates leukocyte extravasation through endothelial intercellular junctions *in vitro* and *in vivo*. JAM4 mediates calcium-independent homophilic cell adhesion. It interacts with MAGI-1 (membrane associated guanylate kinase inverted-1), a scaffolding protein, to regulate the permeability of kidney glomerulus and small intestine epithelial cells.

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. Naik, U.P., et al. 2001. Characterization and chromosomal localization of JAM1, a platelet receptor for a stimulatory monoclonal antibody. *J. Cell Sci.* 114: 539-547.
3. Tajima, M., et al. 2003. Roles of immunoglobulin-like loops of junctional cell adhesion molecule 4; involvement in the subcellular localization and the cell adhesion. *Genes Cells* 8: 759-768.
4. Hirabayashi, S., et al. 2003. JAM4, a junctional cell adhesion molecule interacting with a tight junction protein, MAGI-1. *Mol. Cell. Biol.* 23: 4267-4282.
5. Mori, H., et al. 2004. JAM4 enhances hepatocyte growth factor-mediated branching and scattering of Madin-Darby canine kidney cells. *Genes Cells* 9: 811-819.
6. Hirabayashi, S., et al. 2005. MAGI-1 is a component of the glomerular slit diaphragm that is tightly associated with nephrin. *Lab. Invest.* 85: 1528-1543.

CHROMOSOMAL LOCATION

Genetic locus: Igsf5 (mouse) mapping to 16 C4.

SOURCE

JAM4 (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of JAM4 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-103574 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

JAM4 (M-13) is recommended for detection of JAM4 of mouse and rat 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).

Suitable for use as control antibody for JAM4 siRNA (m): sc-105583, JAM4 shRNA Plasmid (m): sc-105583-SH and JAM4 shRNA (m) Lentiviral Particles: sc-105583-V.

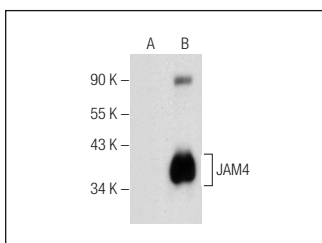
Molecular Weight of JAM4: 45 kDa.

Positive Controls: JAM4 (m): 293T Lysate: sc-121151.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



JAM4 (M-13): sc-103574. Western blot analysis of JAM4 expression in non-transfected: sc-117752 (A) and mouse JAM4 transfected: sc-121151 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **JAM4 (F-8): sc-390815**, our highly recommended monoclonal alternative to JAM4 (M-13).