

# JAM4 (F-8): sc-390815

## 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. Martín-Padura, L., 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 JAM-1, 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

JAM4 (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 242-263 near the C-terminus of JAM4 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

JAM4 (F-8) is available conjugated to agarose (sc-390815 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390815 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390815 PE), fluorescein (sc-390815 FITC), Alexa Fluor® 488 (sc-390815 AF488), Alexa Fluor® 546 (sc-390815 AF546), Alexa Fluor® 594 (sc-390815 AF594) or Alexa Fluor® 647 (sc-390815 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390815 AF680) or Alexa Fluor® 790 (sc-390815 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390815 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

JAM4 (F-8) is recommended for detection of JAM4 of mouse and rat 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) 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.

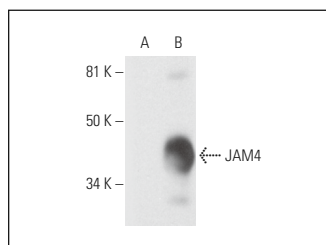
Molecular Weight of JAM4: 45 kDa.

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

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



JAM4 (F-8): sc-390815. Western blot analysis of JAM4 expression in non-transfected: sc-117752 (A) and mouse JAM4 transfected: sc-121151 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

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

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