

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse JAM-A in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant human JAM-A.
Source	Monoclonal Rat IgG _{2B} Clone # 160407
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse JAM-A Lys27-Ala242 Accession # O88792
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse JAM-A Fc Chimera (Catalog # 1077-JM)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The family of junctional adhesion molecules (JAM), comprising at least three members, are type I transmembrane receptors belonging to the immunoglobulin (Ig) superfamily (1, 2). These proteins are localized in the tight junctions between endothelial or epithelial cells. Some family members are also found on blood leukocytes and platelets. Mouse JAM-A is predominantly expressed at intercellular junctions of both epithelial cells and endothelial cells (3). It is also expressed on circulating megakaryocytes. Mouse JAM-A cDNA predicts a 300 amino acid (aa) residue precursor protein with a putative 23 aa signal peptide, a 215 aa extracellular region containing two Ig-like V-subset domains, a 17 aa transmembrane domain and a 45 aa cytoplasmic domain. The human and mouse protein share approximately 67% aa sequence homology. Mouse JAM-A also shares approximately 35% aa sequence homology with mouse JAM-B or JAM-C. JAM-A exhibits homotypic interactions to regulate tight junction assembly and modulate paracellular permeability (1 - 3). The human JAM-A homotypic interaction also mediates platelet aggregation and adhesion to endothelial cells and may play a role in thrombosis (4). JAM-A is involved in leukocyte adhesion and transmigration through the endothelium (3, 5). JAM-A has also been shown to bind reovirus attachment protein sigma-1 to permit reovirus infection and signal virus-induced apoptosis (6).

References:

1. Chavakis, T. *et al.* (2003) *Thromb. Haemost.* **89**:13.
2. Aurand-Lions, M. *et al.* (2001) *Blood* **98**:3699.
3. Martin-Padura, I. *et al.* (1998) *J. Cell Biol.* **142**:117.
4. Babinska, A. *et al.* (2002) *Thromb. Haemost.* **88**:842.
5. Del Maschio, A. *et al.* (1999) *J. Exp. Med.* **190**:1351.
6. Barton, E.S. *et al.* (2001) *Cell* **104**:441.