

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse JAM-C in direct ELISAs and Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human JAM-C and less than 2% cross-reactivity with recombinant mouse (rm) JAM-A and rmJAM-B is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse JAM-C Val32-Asn241 Accession # Q9D8B7
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

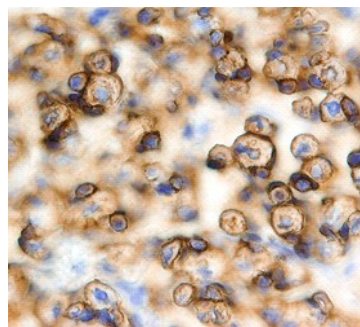
#### APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse JAM-C Fc Chimera (Catalog # 1213-J3)
<b>Immunocytochemistry</b>	5-15 µg/mL	Immersion fixed mouse splenocytes
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Blockade of Receptor-ligand Interaction</b>	In a functional ELISA, 3-15 µg/mL of this antibody will block 50% of the binding of 10 ng/mL of biotinylated Recombinant Mouse VEJAM to immobilized Recombinant Mouse JAM-C (Catalog # 1213-J3) coated at 2 µg/mL (100 µL/well). At 30 µg/mL, this antibody will block >90% of the binding.	

#### DATA

##### Immunohistochemistry



**JAM-C in Mouse Embryo.** JAM-C was detected in immersion fixed frozen sections of mouse embryo (15 d.p.c.) using Goat Anti-Mouse JAM-C Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1213) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to muscle cells. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

The family of junctional adhesion molecules (JAM), comprised of 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 cells or epithelial cells. Some family members are also found on blood leukocytes and platelets. Mouse JAM-C cDNA predicts a 310 amino acid (aa) residue precursor protein with a putative 31 aa signal peptide, a 210 aa extracellular region containing two Ig domains, an 18 aa transmembrane domain and a 51 aa cytoplasmic domain containing a PDZ-binding motif and a PKC phosphorylation site (3). Mouse JAM-C shares 86% aa sequence identity with its human homologue. It also shares approximately 31% and 35% aa sequence homology with mouse JAM-A and JAM-B, respectively (2). Mouse JAM-C is highly expressed during embryogenesis. In adult tissues, mouse JAM-C is restricted to endothelial cells, lymph endothelial cells in the kidney, lymph node and Peyer's patches where the protein can be localized to the high endothelial venules (3). Although human JAM-C is expressed on human platelets and a subset of leukocytes, mouse JAM-C expression was not detected on any mouse lymphocytes (4). In contrast to human JAM-C which show weak homotypic interactions, mouse JAM-C was reported to exhibit homotypic interactions (3). Mouse JAM-C has also been shown to have heterotypic interaction with JAM-B. It is likely that mouse JAM-C may play a role in lymphocyte transendothelial migration (4).

*The nomenclature used for the JAM family proteins is confusing. VE-JAM has been referred to in the literature variously as JAM-B or JAM-C. Until further clarification, R&D Systems has adopted the nomenclature where both mouse and human VE-JAM are referred to as JAM-B.*

#### References:

1. Chavakis, T. *et al.* (2003) *Thromb. Haemost.* **89**:13.
2. Aurrand-Lions, M. *et al.* (2001) *Blood* **98**:3699.
3. Aurrand-Lions, M. *et al.* (2001) *J. Biol. Chem.* **276**:2733.
4. Johnson-Leger, C. *et al.* (2002) *Blood* **100**:25793.