

DESCRIPTION

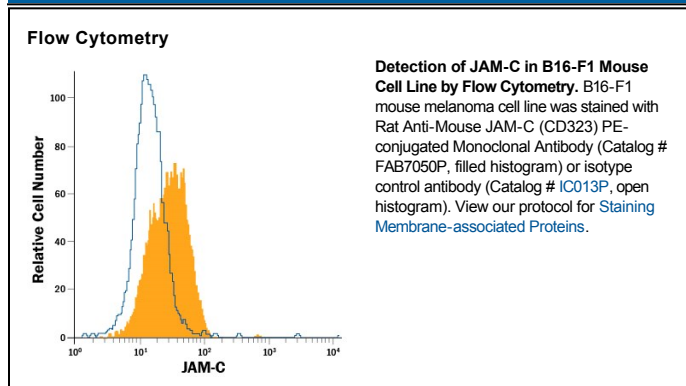
Species Reactivity	Mouse
Specificity	Detects mouse JAM-C (CD323) in flow cytometry.
Source	Monoclonal Rat IgG _{2B} Clone # 209628
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse JAM-C (CD323) Val32-Asn241 Accession # Q9D8B7
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

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.