Human JAM-C
Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 208212

Catalog Number: FAB11891N

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human JAM-C in direct ELISAs.
Source	Monoclonal Mouse IgG_{2B} Clone # 208212
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human JAM-C Val32-Asn241(Ala149Pro) Accession # Q9BX67
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2 mg/mL 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	0.25-1 µg/10^6 cells	Human Platelets

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.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

The family of juctional 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 cells or epithelial cells. Some family members are also found on blood leukocytes and platelets. Human 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, a 23 aa transmembrane domain and a 46 aa cytoplasmic domain containing a PDZ-binding motif and a PKC phosphorylation site (3, 4). Human JAM-C shares 86% aa sequence identity with its mouse homologue. It also shares approximately 36% and 32% aa sequence homology with human JAM-B and JAM-A, respectively (3-5). Human JAM-C shows widespread tissue expression and the highest levels are found in the placenta, brain, kidney and heart. JAM-C is expressed on endothelial cells of high endothelial venules in human tonsil. It is also expressed on platelets, T-cells and NK cells (3-5). Unlike other JAM family members, JAM-C forms only weak homotypic interactions. JAM-C binds to JAM-B to facilitate the interactions between JAM-B and the integrin alpha4beta1 (6). This heterotypic interaction between leukocyte JAM-C and endothelial JAM-B may play a role in regulating leukocyte transmigration (5). On platelets, JAM-C is a counter-receptor for the leukocyte integrin Mac-1(CD11b/CD18) (7). JAM-C has also been identified as a strong candidate gene for hypoplastic left heart syndrome (8).

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. Under this system, JAM-C refers to the protein encoded by the gene localized to human chromosome 11.

References:

1. Chavakis, T. *et al.* (2003) Thromb. Haemost. **89**:13.
2. Aurand-Lions, M. *et al.* (2001) Blood **98**:3699.
3. Arrate, M.P. *et al.* (2001) J. Biol. Chem. **276**:45826.
4. Liang, T. *et al.* (2002) J. Immunol. **168**:1618.
5. Johnson-Leger, C. *et al.* (2002) Blood **100**:25793.
6. Cunningham, A. *et al.* (2002) J Biol. Chem. **277**:27589.
7. Santoso, S. *et al.* (2002) J. Exp. Med. **196**:679.
8. Phillips, H.M. *et al.* (2002) Genomics **79**:475.

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