

PRODUCT INFORMATION



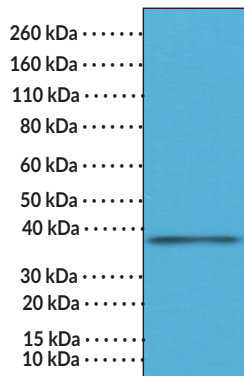
JAM-A (N-Term) Rabbit Monoclonal Antibody (Clone RM275)

Item No. 32225

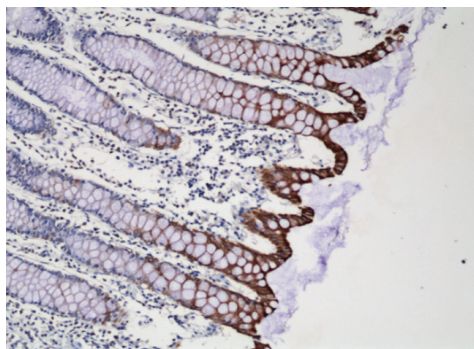
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	CD321, F11R, JAM-1, JCAM, Junctional Adhesion Molecule A, KAT, PAM-1, Platelet Adhesion Molecule 1
Immunogen:	Peptide from the N-terminal region of human JAM-A
Cross Reactivity:	(+) JAM-A
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM275
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:2,000-1:10,000 for IHC and 1:250-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of HEK293 cells using JAM-A (N-Term) Rabbit Monoclonal Antibody (Clone RM275) at a 1:250 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human colon tissue using Cytokeratin 20 (C-Term) Rabbit Monoclonal Antibody (Clone RM283) at a 1:250 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Junctional adhesion molecule A (JAM-A), known previously as JAM-1, is a type I transmembrane protein and member of the immunoglobulin (Ig) superfamily that regulates epithelial and endothelial barrier and tight junction formation.¹⁻³ It is comprised of an N-terminal extracellular domain containing two Ig-like domains that mediate cell-cell interactions, a single transmembrane domain, and a cytoplasmic tail containing a PDZ binding motif that interacts with numerous cytoplasmic scaffold proteins and intracellular signaling molecules.^{1,2} JAM-A exists as a monomer or homodimer, is primarily expressed by epithelial cells, endothelial cells, and leukocytes, and localizes to the cell surface.¹ It associates *via cis-* or *trans-*interactions with a variety of cell surface proteins, including the additional JAM family members JAM-B and JAM-C, which are also expressed by epithelial cells, endothelial cells, and leukocytes, as well as integrins expressed by leukocytes, such as $\alpha\text{L}\beta\text{2}$, $\alpha\text{M}\beta\text{2}$, and $\alpha\text{4}\beta\text{1}$, to mediate homotypic or heterotypic cell-cell adhesions that regulate tight junction assembly and transepithelial cell migration. JAM-A has additional roles in angiogenesis, hemostasis, cell cycle, and inflammation. JAM-A levels are increased in plasma cells isolated from patients with multiple myeloma and are associated with poor prognosis.⁴ Cayman's JAM-A (N-Term) Rabbit Monoclonal Antibody (Clone RM275) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Ebnet, K. Junctional adhesion molecules (JAMs): Cell adhesion receptors with pleiotropic functions in cell physiology and development. *Physiol. Rev.* **97(4)**, 1529-1554 (2017).
2. Mandell, K.J., Babbitt, B.A., Nusrat, A., *et al.* Junctional adhesion molecule 1 regulates epithelial cell morphology through effects on β1 integrins and Rap1 activity. *J. Biol. Chem.* **280(12)**, 11665-11674 (2005).
3. Mandell, K.J., McCall, I.C., Parkos, C.A., *et al.* Involvement of the junctional adhesion molecule-1 (JAM1) homodimer interface in regulation of epithelial barrier function. *J. Biol. Chem.* **279(16)**, 16254-16262 (2002).
4. Solimando, A.G., Brandl, A., Mattenheimer, K., *et al.* JAM-A as a prognostic factor and new therapeutic target in multiple myeloma. *Leukemia* **32(3)**, 736-743 (2018).

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