Data Sheet (Cat.No.TMPY-03039)

TargetMol

JAM-B Protein, Rat, Recombinant (hFc)

General Information

Synonyms:	junctional adhesion molecule 2
Protein Construction:	A DNA sequence encoding the rat JAM2 (Q3MHC0) (Met1-Asn236) was expressed, fused with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Phe 29
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	Q3MHC0
Molecular Weight:	50.3 kDa (predicted); 61 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Junctional adhesion molecule B (JAM-B), also known as Junctional adhesion molecule 2 (JAM2), Vascular endothelial junction-associated molecule (VE-JAM), and CD322, is a single-pass type I membrane protein that belongs to the immunoglobulin superfamily. It is prominently expressed on high endothelial venules. expression to be restricted to the high endothelial venule of tonsil and lymph nodes. The localization to the endothelium of arterioles in and around inflammatory and tumor foci. JAM-B can function as an adhesive ligand for the T cell line

J45 and can interact with GM-CSF/IL-4-derived peripheral blood dendritic cells, circulating CD56(+) NK cells, circulating CD56(+)CD3(+) NK/T cells, and circulating CD56(+)CD3(+)CD8(+) cytolytic T cells. JAM-2 is expressed on high endothelial venules (HEVs) in human tonsil and on a subset of human leukocytes, suggesting that JAM-2 plays a central role in the regulation of transendothelial migration. It binds to very late activation antigen (VLA)-4, a leucocyte integrin that contributes to rolling and firm adhesion of lymphocytes to endothelial cells through binding to vascular cell adhesion molecule (VCAM)-1. JAM-B appears to contribute to leukocyte extravasation by facilitating not only transmigration but also rolling and adhesion. JAM-B acts as an adhesive ligand for interacting with a variety of immune cell types and may play a role in lymphocyte homing to secondary lymphoid organs.

Reference

Johnson-Lger CA, et al. (2002) Junctional adhesion molecule-2 (JAM-2) promotes lymphocyte transendothelial migration. Blood. 2100(7): 2479-86.

Liang TW, et al. (2002) Vascular endothelial-junctional adhesion molecule (VE-JAM)/JAM 2 interacts with T, NK, and dendritic cells through JAM 3. J Immunol. 168(4): 1618-26.

Ludwig RJ, et al. (2009) Junctional adhesion molecule (JAM)-B supports lymphocyte rolling and adhesion through interaction with alpha4beta1 integrin. Immunology. 128(2): 196-205.

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