

JAM-C Protein, Human, Recombinant (hFc)

General Information

Synonyms:	JAM-2;JAM-C;junctional adhesion molecule 3;JAMC;JAM-3
Protein Construction:	A DNA sequence encoding the human JAM3 (Q9BX67) extracellular domain (Met 1-Asn 241) was fused with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Val 32
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9BX67
Molecular Weight:	51 kDa (predicted); 60 kDa (reducing condition, due to glycosylation)

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:	> 85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m 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.

Actual storage temperature shall be subject to the COA.

Shipping:
In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Junctional Adhesion Molecule C Protein & Antibody (JAM-C, JAM3 Protein) also known as Junctional adhesion molecule 3, JAM3, is a single-pass type I membrane protein that belongs to the immunoglobulin superfamily. It is an adhesion molecule expressed by endothelial cells (ECs) that plays a role in tight junction formation, leukocyte adhesion, and transendothelial migration. JAM-C is an adhesion molecule that is expressed on cells within the vascular compartment and epithelial cells and, to date, has been largely studied in the context of inflammatory

events. JAM-C is also expressed in peripheral nerves and that this expression is localized to Schwann cells at junctions between adjoining myelin end loops. JAM-C is a component of the autotypic junctional attachments of Schwann cells and plays an important role in maintaining the integrity and function of myelinated peripheral nerves. JAM-C was recently shown to be a counter receptor for the leukocyte beta2-integrin Mac-1 (CD11b/CD18), thereby mediating interactions between vascular cells, particularly in inflammatory cell recruitment. JAM-C is up-regulated by oxidized low-density lipoprotein (LDL) and may thereby contribute to increased inflammatory cell recruitment during atherosclerosis. JAM-C may therefore provide a novel molecular target for antagonizing interactions between vascular cells in atherosclerosis. JAM-C was shown to undergo a heterophilic interaction with the leukocyte beta2 integrin Mac-1, thereby mediating interactions between vascular cells in inflammatory cell recruitment. JAM-C undergoes a homophilic interaction via the Arg64-Ile65-Glu66 motif on the membrane-distal Ig domain of the molecule. The homophilic interaction of JAM-C can mediate tumor cell-endothelial cell interactions and may thereby be involved in the process of tumor cell metastasis.

Reference

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