

JAM-A Protein, Rat, Recombinant (His)

General Information

Synonyms:	F11 receptor
Protein Construction:	A DNA sequence encoding the rat F11R (Q9JHY1) (Met1-Gly238) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Lys 27
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	Q9JHY1
Molecular Weight:	24.3 kDa (predicted); 28 and 32 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:	> 95 % 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.

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-A (JAM-A), also known as F11 receptor (F11R) or Cluster of Differentiation 321 (CD321), is a transmembrane protein expressed at tight junctions of epithelial and endothelial cells, as well as on circulating leukocytes. JAM-A protein serves as a serotype-independent receptor for mammalian orthoreoviruses (reoviruses). It is also a ligand for the integrin LFA1, involves in leukocyte transmigration. As a cell adhesion molecule of the immunoglobulin superfamily, JAM-A protein involves in platelet adhesion, secretion and

aggregation, and plays a crucial role in inflammatory thrombosis and atherosclerosis. In addition, it may be a potential therapeutic target for breast cancer.

Reference

Guglielmi KM, et al. (2007) Reovirus binding determinants in junctional adhesion molecule-A. *J Biol Chem.* 282(24): 17930-40.

Yeung D, et al. (2008) Decreased junctional adhesion molecule-A expression during blood-brain barrier breakdown. *Acta Neuropathol.* 115(6): 635-42.

Ong KL, et al. (2009) Elevated plasma level of soluble F11 receptor/junctional adhesion molecule-A (F11R/JAM-A) in hypertension. *Am J Hypertens.* 22(5): 500-5.

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