

Human JAM-A / F11R Protein (His Tag)

Catalog Number: 10198-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CD321; JAM; JAM1; JAMA; JCAM; KAT; PAM-1; 9130004G24; AA638916; ESTM33; JAM; JAM-1; JAM-A; Jcam; Jcam1; Ly106

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Ala 242) of human JAM-A (NP_058642.1) precursor was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. When 8×10^4 cells/well are added to JAM-A-Fc coated plates (2.5µg/mL, 100 µL/well) in the presence of 20 ng/mL PMA, approximately 30-40% will adhere after 30 minutes at 37°C.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ser 28

Molecular Mass:

The secreted recombinant human JAM-A comprises 227 amino acids and has a calculated molecular mass of 25 kDa. As a result of glycosylation, it migrates with the molecular mass of approximately 28-32 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

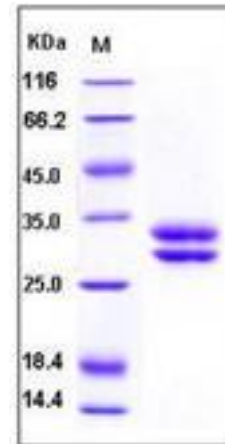
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1. Guglielmi KM, *et al.* (2007) Reovirus binding determinants in junctional adhesion molecule-A. *J Biol Chem.* 282(24): 17930-40.
2. Yeung D, *et al.* (2008) Decreased junctional adhesion molecule-A expression during blood-brain barrier breakdown. *Acta Neuropathol.* 115(6): 635-42.
3. 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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