



# Recombinant Protein Technical Manual

**Recombinant Rat JAM-B/CD322 Protein (His Tag)(Active)**  
RPES3838

## Product Data:

**Product SKU:** RPES3838

**Size:** 50µg

**Species:** Rat

**Expression host:** HEK293 Cells

**Uniprot:** Q3MHC0

## Protein Information:

**Molecular Mass:** 24.7 kDa

**AP Molecular Mass:** 43 kDa

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. When cells (8 x 10<sup>4</sup> cells/well) are added to rat JAM2-His coated plates (5 µg/mL, 100 µL/well), >30% will adhere after 60 minutes at 37°C.

**Purity:** > 90 % as determined by SDS-PAGE

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

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** JAM2;JAM-2

## Immunogen Information:

**Sequence:** Met1-Asn236

## 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 which 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). JAM-B appears to contribute to leucocyte 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.