Recombinant Protein Technical Manual

Recombinant Human ESAM Protein (aa 30-247, His Tag)

RPES2995

Product Data:

Product SKU: RPES2995

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: Q96AP7

Protein Information:

Molecular Mass: 24.79 kDa

AP Molecular Mass: 38 kDa

Tag: C-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°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 a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.

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

Application:

Synonyms: Endothelial Cell-Selective Adhesion Molecule; ESAM

Immunogen Information:

Sequence: Gln30-Ala247

Background:

Endothelial Cell Adhesion Molecule (ESAM) is a 55 kDa type I transmembrane glycoprotein member of the JAM family of immunoglobulin superfamily molecules. The 390 amino acid Human ESAM contains a 216 amino acid extracellular domain (ECD) with a V-type and a C2-type immunoglobulin (Ig) domain. ESAM is specifically expressed at endothelial tight junctions and on activated platelets and performs homophilic adhesion activity. The adaptor protein membrane-associated guanylate kinase MAGI has been identified as an intracellular binding partner of ESAM. In addition, ESAM at endothelial tight junctions participates in the migration of neutrophils through the vessel wall, possibly by influencing endothelial cell contacts. ESAM-deficient mice were described with lowered angiogenic potential, and accordingly, overexpression of ESAM is closely associated with certain tumor growth and metastasis. ESAM is expressed on endothelial cells, activated platelets and megakaryocytes. The ECD of human and mouse ESAM share 69% amino acid identity.