



Recombinant Protein Technical Manual

Recombinant Human VCAM1 Protein (His Tag)

RPES4562

Product Data:

Product SKU: RPES4562

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: NP_001069.1

Protein Information:

Molecular Mass: 75.3 kDa

AP Molecular Mass: 86 kDa

Tag: C-6His

Bio-activity:

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

Endotoxin: < 1.0 EU per µg 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 a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 2mM CaCl₂, 2mM MgCl₂, 5% Threhalose, pH 7.2.

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

Application:

Synonyms: Vascular Cell Adhesion Protein 1; V-CAM 1; VCAM; INCAM00; CD106; VCAM1; L1CAM

Immunogen Information:

Sequence: Phe25-Glu698

Background:

VCAM is a single-pass type I membrane protein, contains 7 Ig-like C2-type domains. It is an endothelial ligand for very late antigen-4 (VLA-4) and $\alpha 4 \beta 7$ integrin expressed on leukocytes, and thus mediates leukocyte-endothelial cell adhesion and signal transduction. VCAM expression is induced on endothelial cells during inflammatory bowel disease, atherosclerosis, allograft rejection, infection, and asthmatic responses. During these responses, VCAM forms a scaffold for leukocyte migration. VCAM also activates signals within endothelial cells resulting in the opening of an "endothelial cell gate" through which leukocytes migrate. VCAM has been identified as a potential anti-inflammatory therapeutic target, the hypothesis being that reduced expression of VCAM will slow the development of atherosclerosis. In addition, VCAM-activated signals in endothelial cells are regulated by cytokines indicating that it is important to consider both endothelial cell adhesion molecule expression and function during inflammatory processes.