

## Recombinant Mouse VCAM1 Protein (His &Fc Tag)

**Catalog Number:** PKSM040832

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

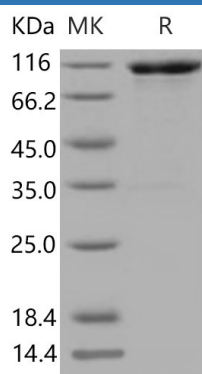
### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Mouse   |
| <b>Source</b>        | HEK293 Cells-derived Mouse VCAM1 protein Met 1-Glu 698, with an C-terminal His & Fc   |
| <b>Calculated MW</b> | 102 kDa   |
| <b>Observed MW</b>   | 110-120 kDa   |
| <b>Accession</b>     | NP_035823.3   |
| <b>Bio-activity</b>  | Measured by the ability of the immobilized protein to support adhesion of U937 human histiocytic lymphoma cells. When cells are added to VCAM1-coated plates (10 µg/ml, 100 µg/well), approximately > 70% cells will adhere specifically. |

### Properties

|                       |   |
|-----------------------|---|
| <b>Purity</b>         | > 90 % as determined by reducing SDS-PAGE.  |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.   |
| <b>Storage</b>        | Generally, 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. |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.   |
| <b>Formulation</b>    | Lyophilized from sterile PBS, pH 7.4<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual.             |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.  |

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

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Vascular cell adhesion molecule 1 (VCAM-1), also known as CD106, is a cell surface sialoglycoprotein belonging to the immunoglobulin superfamily. Two forms of VCAM-1 with either six or seven extracellular Ig-like domains are generated by alternative splicing, with the longer form predominant. VCAM-1 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-1 expression is induced on endothelial cells during inflammatory bowel disease, atherosclerosis, allograft rejection, infection, and asthmatic responses. During these responses, VCAM-1 forms a scaffold for leukocyte migration. VCAM-1 also activates signals within endothelial cells resulting in the opening of an "endothelial cell gate" through which leukocytes migrate. VCAM-1 has been identified as a potential anti-inflammatory therapeutic target, the hypothesis being that reduced expression of VCAM-1 will slow the development of atherosclerosis. In addition, VCAM-1-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.

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