

RP00972

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Recombinant Human VCAM-1/CD106 Protein

Catalog No.: RP00972

Recombinant

1 Publications

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	7412	P19320

Tags

C-His

Synonyms

CD106;INCAM-100;VCAM1

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

Please contact us for more information.

Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

 www.abclonal.com

Background

This protein also known as CD16, 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 α4β7 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.

Basic Information

Description

Recombinant Human VCAM-1/CD106 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Phe25-Glu698) of human VCAM1 (Accession #NP_001069.1) fused with a 6×His tag at the C-terminus.

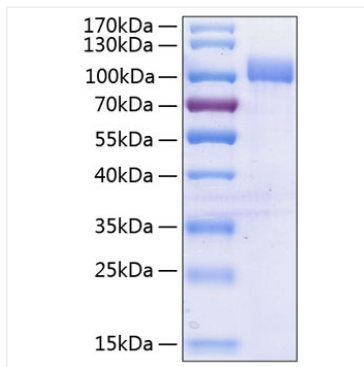
Bio-Activity

Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. When 5 x 10⁴ cells/well are added to human VCAM1 coated plates (10 µg/mL with 100 µL/well), approximately 80%-90% cells will adhere after 1 hour at 37°C. |2. Measured by its binding ability in a functional ELISA. Immobilized APC anti-human CD106 Antibody at 1 µg/mL (25 µL/well) can bind Human VCAM1 with a linear range of 0.46-16.9 ng/mL.

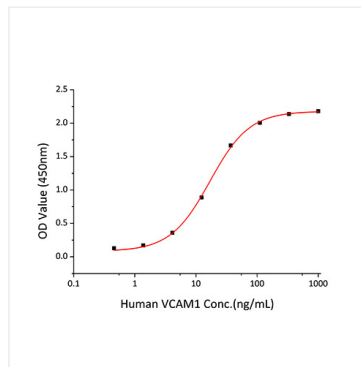
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human VCAM-1/CD106 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 100-110 kDa.



Immobilized APC anti-human CD106 Antibody at 1 μ g/mL (25 μ L/well) can bind Human VCAM1 with a linear range of 0.46-16.9 ng/mL.