

Recombinant Human VCAM-1/CD106 Protein

Catalog No.: RP00972

Sequence Information

Species **Gene ID**
Human 7412

Swiss Prot **Tags**
P19320 C-His

Synonyms

CD106, INCAM-100, VCAM1

Product Information

Source **Purification**
HEK293 cells ≥ 95 % as
determined by
SDS-PAGE.

Calculated MW Observed MW

74.23 kDa 100-110 kDa

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.

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.

Activity

Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. When 5 x 10E4 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.

Shipping

Lyophilized proteins are shipped at ambient temperature.

Liquid proteins are shipped at frozen temperature with dry ice.

Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

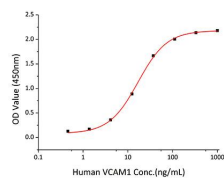
Contact

☎ | 400-999-6126

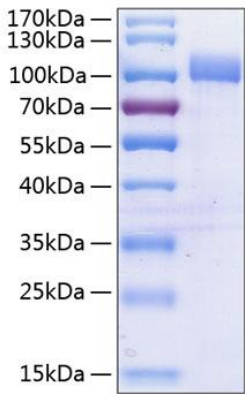
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Validation Data



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



Recombinant Human VCAM-1/CD106 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.