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Recombinant Mouse VCAM-1/CD106 Protein(Fc Tag)

Catalog Number: PDMM100163

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

Description	
Species	Mouse
Source	Mammalian-derived Mouse VCAM-1/CD106 proteins TMet1-Glu698, with an C-
	terminal Fc
Calculated MW	101.6 kDa
Observed MW	102 kDa
Accession	P29533
Bio-activity	Not validated for activity
Properties	
Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	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 $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with 5% Trehalose and 5%
	Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of
	0.5 mg/mL. Concentration is measured by UV-Vis.

Data



 $SDS\text{-}PAGE \ analysis of Mouse \ VCAM\text{-}1/CD106 \ proteins \ , \\ 2\mu g/lane \ of Recombinant Mouse \ VCAM\text{-}1/CD106 \ proteins \ was resolved with \ SDS\text{-}PAGE \ under \ reducing \ conditions \ , \\ showing \ bands \ at \ 102 \ KD$

Background

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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 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.