

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived human VCAM-1/CD106 protein				
	Met	Human VCAM-1 (Phe25-Glu698) Accession # P19320	IEGRMD	Human IgG ₁ (Pro100-Lys330)	6-His tag
	N-terminus		C-terminus		
N-terminal Sequence	Met				
Analysis					
Structure / Form	Disulfide-linked homodimer				
Predicted Molecular Mass	101.6 kDa (monomer)				

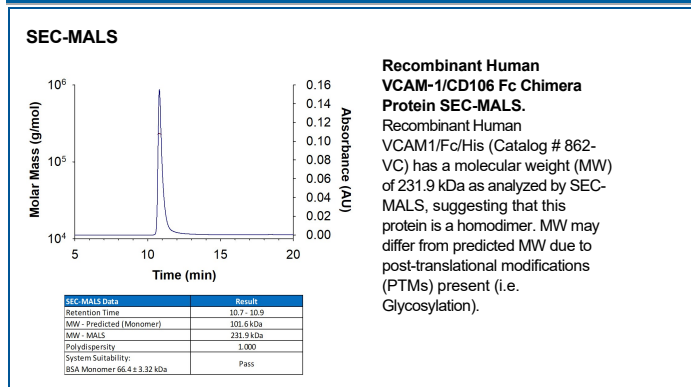
SPECIFICATIONS

SDS-PAGE	115-130 kDa, reducing conditions
Activity	Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. When 5 x 10 ⁴ cells/well are added to human VCAM-1 coated plates (10 µg/mL with 100 µL/well), approximately 90-100% will adhere after 1 hour incubation at RT. Optimal dilutions should be determined by each laboratory for each application.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 week, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



Recombinant Human VCAM-1/CD106 Fc Chimera Protein SEC-MALS.
Recombinant Human VCAM1/Fc/His (Catalog # 862-VC) has a molecular weight (MW) of 231.9 kDa as analyzed by SEC-MALS, suggesting that this protein is a homodimer. MW may differ from predicted MW due to post-translational modifications (PTMs) present (i.e. Glycosylation).

BACKGROUND

Human VCAM-1 (CD106, INCAM-110) is a cell adhesion molecule and a member of the immunoglobulin superfamily. Alternatively spliced forms are known to occur, but the most common form is a type I transmembrane protein with a 674 amino acid extracellular segment that includes seven C2-type immunoglobulin domains. VCAM-1 is expressed by activated endothelial cells and certain other cell types including macrophages, dendritic cells, neurons, smooth muscle cells, fibroblasts, and oocytes. VCAM-1 binds to leukocyte integrins α4β1 (VLA-4) and α4 β7. During the inflammatory adhesion mechanism, activated integrins halt rolling leukocytes and attach them firmly to the vascular endothelium. They do this by binding to their ligands, for example VCAM-1, on endothelium. The VCAM-1:VLA-4/α4 β7 interaction is also thought to be involved in the extravasation of white blood cells through the blood vessel wall to sites of inflammation. ELISA techniques have shown that detectable levels of soluble VCAM-1 are present in the biological fluids of apparently normal individuals. Furthermore, a number of studies have reported that levels of VCAM-1 may be elevated or lowered in subjects with a variety of pathological conditions.