

# PRODUCT INFORMATION



## VCAM-1/CD106 Extracellular Domain (human, recombinant)

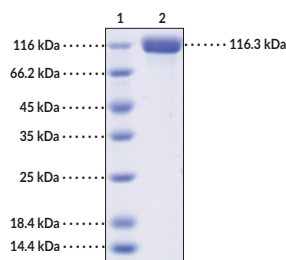
Item No. 44178

### Overview and Properties

<b>Synonyms:</b>	INCAM-100, Inducible Cell Adhesion Molecule 110, Vascular Cell Adhesion Molecule 1, Vascular Cell Adhesion Protein 1
<b>Source:</b>	Active recombinant C-terminal human IgG1 Fc-tagged VCAM-1 extracellular domain expressed in HEK293 cells
<b>Amino Acids:</b>	1-697
<b>Uniprot No.:</b>	P19320
<b>Molecular Weight:</b>	100.8 kDa
<b>Storage:</b>	-80°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Purity:</b>	≥95% estimated by SDS-PAGE
<b>Supplied in:</b>	Lyophilized from sterile PBS, pH 7.4
<b>Endotoxin Testing:</b>	<1.0 EU/μg, determined by the LAL endotoxin assay
<b>Bioactivity:</b>	See figures for details

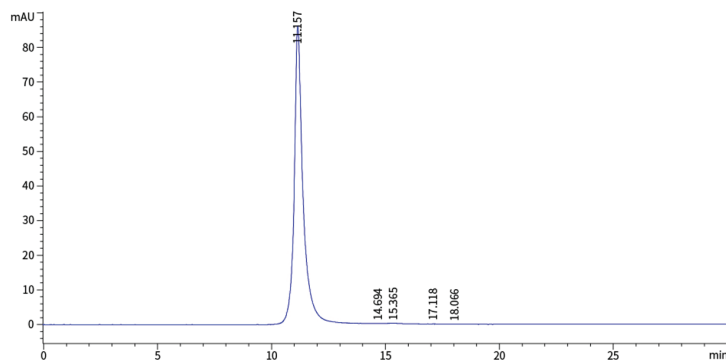
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



Lane 1: MW Markers  
Lane 2: VCAM-1/CD106 Extracellular Domain

**SDS-PAGE Analysis of VCAM-1/CD106 Extracellular Domain.**  
This protein has a calculated molecular weight of 100.8 kDa. It has an apparent molecular weight of approximately 116.3 kDa by SDS-PAGE under reducing conditions due to glycosylation.



Size exclusion chromatography of purified VCAM-1/CD106 Extracellular Domain (human, recombinant)

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

Vascular cell adhesion molecule 1 (VCAM-1), also known as CD106, is a member of the immunoglobulin (Ig) superfamily that is involved in the adhesion and migration of leukocytes and angiogenesis.<sup>1-4</sup> It is composed of an extracellular domain, which may contain seven or six Ig-like repeats depending on the splice variant, a transmembrane domain, and a C-terminal domain.<sup>3,5</sup> VCAM-1 is constitutively expressed in dendritic cells, monocyte-derived cells, and epithelial cells and in endothelium when induced by cytokines.<sup>1,2,5</sup> It can be cleaved by disintegrin and metalloproteinase domain-containing protein 17 (ADAM17) and other metalloproteinases to release soluble VCAM-1 (sVCAM-1), which is a process known as shedding, and is induced by TNF- $\alpha$ , IL-1 $\beta$ , and other cytokines.<sup>3</sup> Increased circulating levels of sVCAM-1 is associated with several diseases, including cancer, diabetes, sepsis, cardiovascular diseases, and preeclampsia, as well as parasitic infections.<sup>3,6-10</sup> Cayman's VCAM-1/CD106 Extracellular Domain (human, recombinant) protein can be used for cell-based adhesion assays. This protein is a disulfide-linked homodimer. The reduced monomer, composed of VCAM-1 (amino acids 25-697) fused to human IgG1 Fc at its C-terminus, consists of 911 amino acids, has a calculated molecular weight of 100.8 kDa, and a predicted N-terminus of Phe25 after signal peptide cleavage. As a result of glycosylation, the monomer migrates at approximately 116.3 kDa by SDS-PAGE under reducing conditions.

## References

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