



Recombinant Human VCAM-1

20201111BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-380
Size:	50 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	7412
Synonyms:	VCAM1; CD106; INCAM-100

VCAM is a 110 kDa cell surface integral membrane glycoprotein that belongs to the Ig-related superfamily of adhesion molecules. The primary function of VCAM-1 is the mediation of leukocyte-endothelial cell adhesion and signal transduction. VCAM-1 may play a vital role in the development several diseases, including atherosclerosis and rheumatoid arthritis. The human VCAM-1 gene codes for a 715 amino acid transmembrane glycoprotein containing a 19 amino acid cytoplasmic domain, a 22 amino acid transmembrane domain, and a 674 amino acid extracellular domain. Recombinant human VCAM-1 is a glycoprotein comprising the extracellular domain (674 amino acid residues) of VCAM-1. Monomeric glycosylated VCAM-1 migrates at an apparent molecular weight of approximately 74.1 kDa by SDS-PAGE analysis under reducing conditions.

Sequence

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FKIETTPESR YLAQIGDSVS LTCSTTGCEs PFFSWRTQID
SPLNGKVTNE GTTSTLTMNP VSFNGEHSYL CTATCESRKL
EKGIQVELYS FPKDPEIHLs GPLEAGKPIT VKCSVADVYP
FDRLEIDLK GDHLMKSQEF LEDADRKSLE TKSLEVTFTP
VIEDIGKVLV CRAKLHIDEM DSVPTVRQAV KELQVYISPK
NTVISVNPST KLQEGGSVTM TCSSEGLPAP EIFWSKLDN
GNLQHLsGNA TLTLIAMRME DSGIYVCEGV NLIgKNRKEV
ELIVQEKPFt VEISPGPRIA AQIGDSVMLT CSVMGCESPS
FSWRTQIDSP LSGKVRSEGT NSTLTLSPVs FENEHSYLCT
VTCGHKKLEK GIQVELYSFP RDPEIEMSGG LVNGSSVTVS
CKVPSVYPLD RLEIELKGE TILenIEFLE DTDmKsLENK
SLEMTFIPTI EDTGKALVcQ AKLHIDDMEF EPKQRQSTQT
LYVNVAPRDT TVLVSPSSIL EEGSSVNMTc LSQGFAPKI
LWSRQLPNGE LQPLSENATL TLISTKMEDs GVYLCEGINQ
AGRSRKEVEL IIQVTPKDIK LTAFPSESVK EGDtVIISCT
CGNVPEtWII LKKKAETGDT VLKSIDGAYT IRKAQL KDAG
VYECESKNKV GSQLRSLTLd VQGRENNKDY FSP
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Database References

Protein RefSeq:	NP_542413.1
Uniprot ID:	P19320
mRNA RefSeq:	NM_080682.2

Product Specifications

Expressed in	HEK 293 cells
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	Lyophilized (10mM Sodium Phosphate, pH 7.0)
Length (aa):	674
MW:	74.1 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 3 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to support the adhesion of human U937 cells. The expected ED₅₀ for this effect is 0.8-1.0 µg/ml.