

## Product datasheet for **RC209761**

### **VCAM1 (NM\_001078) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	VCAM1 (NM_001078) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	VCAM1
Synonyms:	CD106; INCAM-100
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RC209761 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCTGGGAAGATGGTCTGTATCCTTGGAGCCTCAAATATACTTTGGATAATGTTTGCAGCTTCTCAAG  
 CTTTTAAATCGAGACCACCCAGAATCTAGATATCTTGCTCAGATTGGTACTCCGTCTCATTGACTTG  
 CAGCACACAGGCTGTGAGTCCCATTTTTCTCTTGGAGAACCAGATAGATAGTCCACTGAATGGGAAG  
 GTGACGAATGAGGGGACCACATCTACGCTGACAATGAATCCTGTTAGTTTTGGGAACGAACACTCTTACC  
 TGTGCACAGCAACTTGTGAATCTAGGAAATGGAAAAAGGAATCCAGGTGGAGATCTACTTTTTCTAA  
 GGATCCAGAGATTCATTTGAGTGGCCCTCTGGAGGCTGGGAAGCCGATCACAGTCAAGTGTTCAGTTGCT  
 GATGTATACCCATTTGACAGGCTGGAGATAGACTTACTGAAAGGAGATCATCTCATGAAGAGTCAGGAAT  
 TTCTGGAGGATGCAGACAGGAAGTCCCTGGAAACCAAGAGTTTGGAAAGTAACTTTACTCCTGTCATTGA  
 GGATATTGAAAAAGTTCTTGTGGCCGAGCTAAATTACACATTGATGAAATGGATTCTGTGCCACAGTA  
 AGGCAGGCTGTAAAAAATTGCAAGTCTACATATCACCAAGAATACAGTATTTCTGTGAATCCATCCA  
 CAAAGCTGCAAGAAGGTGGCTCTGTGACCATGACCTGTTCCAGCGAGGGTCTACCAGCTCCAGAGATTTT  
 CTGGAGTAAGAAATTAGATAATGGGAATCTACAGCACCTTTCTGGAAATGCAACTCTCACCTAATTGCT  
 ATGAGGATGGAAGATTCTGGAATTTATGTGTGTGAAGGAGTTAATTTGATTGGGAAAAACAGAAAAGAGG  
 TGGAAATTAATGTTCAAGAGAAACCATTACTGTTGAGATCTCCCTGGACCCCGGATTGCTGCTCAGAT  
 TGGAGACTCAGTCATGTTGACATGTAGTGTGATGGGCTGTGAATCCCATCTTTCTCCTGGAGAACCAG  
 ATAGACAGCCCTCTGAGCGGGAAGGTGAGGAGTGAGGGACCAATTCCACGCTGACCTGAGCCCTGTGA  
 GTTTTGAGAACGAACACTCTTATCTGTGCACAGTGACTTGTGGACATAAGAAACTGGAAAAAGGGAATCCA  
 GGTGGAGCTCTACTCATTCCCTAGAGATCCAGAAATCGAGATGAGTGGTGGCCTCGTGAATGGGAGCTCT  
 GCACTGTAAGCTGCAAGGTTCCTAGCGTGTACCCCTTGACCGCTGGAGATTGAATTAAGGGGG  
 AGACTATTCTGGAGAATATAGAGTTTTTGGAGGATACGGATATGAAATCTCTAGAGAACAAAAGTTTGGAA  
 AATGACCTTCATCCCTACCATTGAAGATACTGGAAAAGCTCTTGTGTCAGGCTAAGTTACATATTGAT  
 GACATGGAATTCGAACCCAAACAAGGCAGAGTACGCAAACTTTATGTCAATGTTGCCCCAGAGATA  
 CAACCGTCTTGGTCAGCCCTTCTCCATCCTGGAGGAAGGCAGTCTGTGAATATGACATGCTTGAGCCA  
 GGGCTTTCTGCTCCGAAAATCCTGTGGAGCAGGCAGCTCCCTAACGGGGAGCTACAGCCTTTTCTGAG  
 AATGCAACTCTCACCTTAATTTCTACAAAATGGAAGATTCTGGGTTTATTTATGTGAAGGAATTAACC  
 AGGCTGGAAGAAGCAGAAAGGAAGTGAATTAATTATCCAAGTACTCCAAAAGACATAAACTTACAGC  
 TTTTCTTCTGAGAGTGTCAAAGAAGGAGACACTGTCATCATCTTGTGATCATGTGGAAATGTTCCAGAA  
 ACATGGATAATCCTGAAGAAAAAGCGGAGACAGGAGACAGTACTAAAATCTATAGATGGCGCTATA  
 CCATCCGAAAGGCCAGTTGAAGGATGCGGGAGTATATGAATGTGAATCTAAAAACAAAGTTGGCTCACA  
 ATTAAGAAGTTTAACTTGTGTTCAAGGAAGAGAAAACAACAAGACTATTTTCTCCTGAGCTTCTC  
 GTGCTCTATTTGTCATCCTCCTAATAAATACCTGCCATTGGAATGATAATTTACTTTGCAAGAAAAGCCA  
 ACATGAAGGGTTCATATAGTCTTGTAGAAGCACAGAAATCAAAAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATGAGTTTAA

**Protein Sequence:** >RC209761 protein sequence  
 Red=Cloning site Green=Tags(s)

MPGKMMVILGASNILWIMFAASQAFKIETTPESRYLAQIGDSVSLTCSTTGCEPFFSWRTQIDSPLNGK  
 VTNEGTTSTLTMNPVSGNEHSYLCTATCESRKLEKGIQVEIYSFPKDPEIHLSGPLEAGKPITVKCSVA  
 DVYPFDRLEIDLKGDHLMKSQEFLEDADRKSLETKSLEVTFPTVIEDIGKVLVCRAKLHIDEMDSVPTV  
 RQAVKELQVYISPKNTVIVSNPSTKLQEGGSVTMTCSSSEGLPAPEIFWSKKLDNGNLQHLSGNATLTLIA  
 MRMEDSGIYVCEGVNLIGKNRKEVELIVQEKPFVTEISPGPRIAAQIGDSVMLTCSVMGCESPFSWRTQ  
 IDSPLSGKVRSEGTNSTLTLSPVSFENEHSYLCTVTCGHKKLEKGIQVELYSFPRDPEIEMSGGLVNGSS  
 VTVSCKVPSVYPLDRLEIELLKGETILENIEFLEDMDKSLNKSLEMTFIPTIEDTGKALVCQAKLHID  
 DMEFEPKQRQSTQTLVYVAVPRDITVLSVSSILEEGSSVNMTCLSQGFAPKILWSRQLPNGELQPLSE  
 NATLTLISTKMEDSGVYLCEGINQAGRSRKEVELIIQVTPKDIKLTAFPSESVKEGDTVIISCTCGNVPE  
 TWIILKKAETGDTVLKSIDGAYTIRKAQLKDAGVYECESKNKVGSQLRSLTLDVQGRENNKYDFSPELL  
 VLYFASSLIIPAIGMIIYFARKANMKGSYSLVEAQKSKV

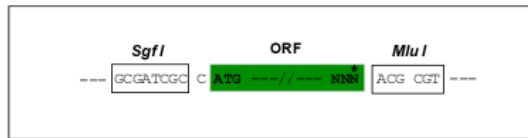
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6261\\_c07.zip](https://cdn.origene.com/chromatograms/mk6261_c07.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

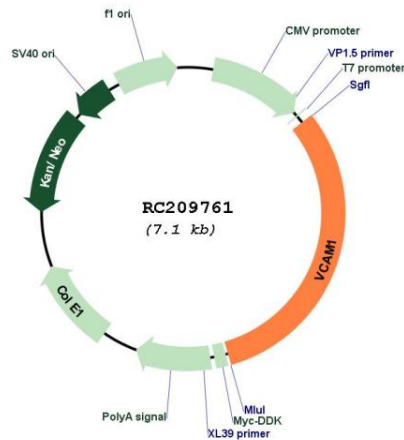
**ACCN:** NM\_001078

**ORF Size:** 2217 bp

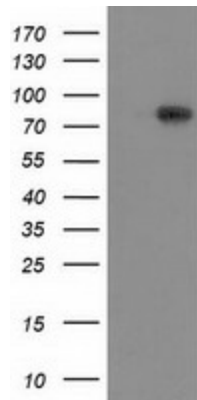
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001078.2</a> , <a href="#">NP_001069.1</a>
<b>RefSeq Size:</b>	3220 bp
<b>RefSeq ORF:</b>	2220 bp
<b>Locus ID:</b>	7412
<b>UniProt ID:</b>	<a href="#">P19320</a>
<b>Cytogenetics:</b>	1p21.2
<b>Domains:</b>	ig, IGv, IGc2, IG
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	Cell adhesion molecules (CAMs), Leukocyte transendothelial migration
<b>MW:</b>	81.3 kDa

**Gene Summary:**

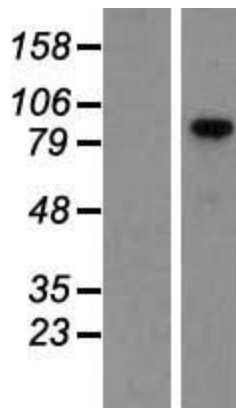
This gene is a member of the Ig superfamily and encodes a cell surface sialoglycoprotein expressed by cytokine-activated endothelium. This type I membrane protein mediates leukocyte-endothelial cell adhesion and signal transduction, and may play a role in the development of atherosclerosis and rheumatoid arthritis. Three alternatively spliced transcripts encoding different isoforms have been described for this gene. [provided by RefSeq, Dec 2010]

**Product images:**


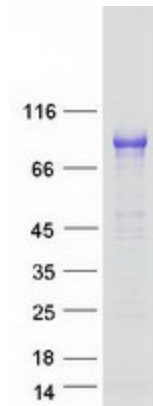
Circular map for RC209761



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY VCAM1 (Cat# RC209761, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-VCAM1 (Cat# [TA502391]). Positive lysates [LY421491] (100ug) and [LC421491] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY421491]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209761 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VCAM1 protein (Cat# [TP309761]). The protein was produced from HEK293T cells transfected with VCAM1 cDNA clone (Cat# RC209761) using MegaTran 2.0 (Cat# [TT210002]).