

Product datasheet for **RC208654**

CD31 (PECAM1) (NM_000442) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD31 (PECAM1) (NM_000442) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD31
Synonyms:	CD31; CD31/EndoCAM; endoCAM; GPIIA'; PECA1; PECAM-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC208654 representing NM_000442
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGCCGAGGTGGGCCAAGGGGCCACGATGTGGCTTGGAGTCTGCTGACCCTTCTGCTCTGTTCAA
 GCCTTGAGGGTCAAGAAACTCTTTCACAATCAACAGTGTGACATGAAGAGCCTGCCGGACTGGACGGT
 GCAAAATGGGAAGAACCTGACCCTGCAGTGTCTCGCGGATGTCAGCACCCCTCTCACGTCAAGCCTCAG
 CACCAGATGCTGTTCTATAAGGATGACGTGCTGTTTTACAACATCTCCTCCATGAAGAGCACAGAGATT
 ATTTTATCTGAAGTCCGGATCTATGACTCAGGGACATATAAATGACTGTGATTGTGAACAACAAAGA
 GAAACCCTGCAGAGTACCAGGTGTTGGTGGAAAGGAGTGCCAGTCCCAGGGTGCACCTGGACAAGAAA
 GAGGCCATCCAAGGTGGATCGTGAGGGTCAACTGTTCTGTCCCAGAGGAAAAGGCCCAATACACTTCA
 CAATTGAAAACTTGAACTAAATGAAAAATGGTCAAGCTGAAAAGAGAGAAGAATTCTCGAGACCAGAA
 TTTTGTGATACTGGAATCCCGCTTGAGGAACAGGACCGGTTTTATCCTCCGATGTCAAGCTAGGATC
 ATTTCTGGGATCCATATGCAGACCTCAGAATCTACCAAGAGTGAAGTGGTCCAGCTGACGGAAATCCTTCT
 CTACACCAAGTTCACATCAGCCCCACCGAATGATCATGGAAGGAGCTCAGCTCCACATTAAGTGCAC
 CATTCAAGTGAAGTCACTGGCCAGGAGTTCCAGAAATCATAATTCAGAAGGACAAGGCGATTGTGGCC
 CACAACAGACATGGCAACAAGGCTGTGTACTCAGTCATGGCCATGGTGGAGCACAGTGGCAACTACACGT
 GCAAAAGTGGAGTCCAGCCGCATATCCAAGTGCAGCAGTATCGTGGTCAACATAACAGAAGTATTTTCCAA
 GCCCGAAGTGGAACTTCTCCTTACACATCTGGACCAAGGTGAAAGACTGAACCTGTCTGCTCCATCCCA
 GGAGCACCTCCAGCCAATTCACCATCCAGAAGGAAGTACGATTGTGTACAGACTCAAGATTTACCA
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 TTTTAAAAACAAGTAAAGTTTTGGAGAATAGTACCAAGAACTCAAATGATCCTGCGGTATTCAAAGACAA
 CCCCACTGAAGACGTGCAATACCAGTGTGTTGCAGATAATTGCCATTCCCAGCCAAAATGTTAAGTGAG
 GTTCTGAGGGTGAAGGTGATAGCCCCGGTGGATGAGGTCCAGATTTCTATCCTGTCAAGTAAAGTGGTGG
 AGTCTGGAGAGGACATTGTGCTGCAATGTGCTGTGAATGAAGGATCTGGTCCCATCACCTATAAGTTTTA
 CAGAGAAAAAGAGGGCAAACCTTCTATCAAATGACCTCAAATGCCACCCAGGCATTTTGGACCAAGCAG
 AAGGCTAACAAAGAACAGGAGGGAGAGTATTACTGCACAGCCTTCAACAGAGCCAACCACGCCTCCAGTG
 TCCCCAGAAGCAAATACTGACAGTCAAGTCACTTCTTGCCCCATGGAAGAAAGGACTTATTGCAAGTGGT
 TATCATCGGAGTATCATTGCTCTCTTGATCATTGCGGCCAAATGTTATTTTCTGAGGAAAAGCCAAGGCC
 AAGCAGATGCCAGTGGAAATGTCCAGGCCAGCAGTACCACTTCTGAACTCCAACAACGAGAAAATGTCAG
 ATCCCAATATGGAAGCTAACAGTCAATACGGTCAATGACGATGTCGGAACCATGCAATGAAACCAAT
 AAATGATAATAAAGAGCCTCTGAACTCAGACGTGACGTACACGGAAGTTCAGTGTCTCAGCTGAGTCT
 CACAAAGATCTAGGAAAGAAGGACACAGAGACAGTGTACAGTGAAGTCCGGAAGCTGTCCCTGATGCCG
 TGGAAAGCAGATACTCTAGAACGGAAGGCTCCCTTGATGGAAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208654 representing NM_000442
Red=Cloning site Green=Tags(s)

MQPRWAQGATMWLGVLLTLLLCSSLEGQENSFTINSVDMKSLPDWTVQNGKNTLQCFADVSTTSHVKPQ
 HQMLFYKDDVLFYNISSMKSTESYFIPEVRIYDSGTYKCTVIVNNKEKTTAEYQVLVEGVSPRVLDDK
 EAIQGGIVRVNCSVPEEKAPIHFTEIKLELNEKMVCLKREKNSRDQNFVILEFPVEEQDRVLSFRCQARI
 ISGIHMQTSESTKSELVTVTESFSTPKFHISPTGMIMEGAQLHIKCTIQVTHLAQEFPEI I IQDKAIVA
 HNRHGNAVYVSMAMVEHSGNYTCKVESSRI SKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIP
 GAPPANFTIQKEDTIVSQTQDFTKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPRISYDAQFE
 VIKQTIEVRCEISGTLPI SYQLLKT SKVLENSTKNSNDPAVFKDNPTEDVEYQC VADNCHSHAKMLSE
 VLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAVNEGSGPITYKFYREKEGKPFYQMTSNATQAFWTKQ
 KANKEQEGEYYCTAFNRANHASSVPRSKILT VRVILAPWKKGLI AVVIIGV I IALL I IAAKCYFLRKAKA
 KQMPVEMSRPAVPLLSNNKMSDPNMEANSHYGHNDVGNHAMKPINDNKEPLNSDVQYTEVQVSSAES
 HKDLGKKDTETVYSEVRKAVPDAVESRYSRTEGSLDGT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3083_a08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

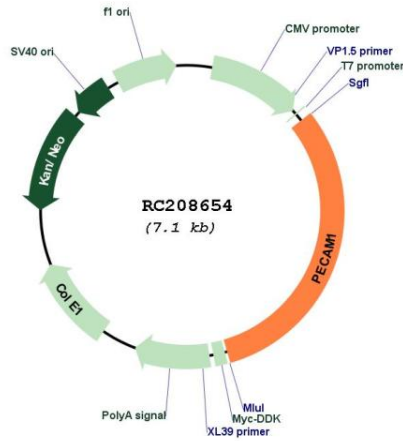
ACCN: NM_000442

ORF Size: 2214 bp

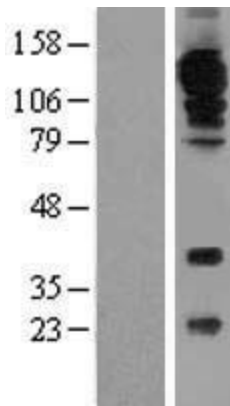
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com 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. More info</p>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	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).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000442.2 , NP_000433.2
RefSeq Size:	3754 bp
RefSeq ORF:	2217 bp
Locus ID:	5175
UniProt ID:	P16284
Cytogenetics:	17q23.3
Domains:	ig, IGc2, IG
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs), Leukocyte transendothelial migration
MW:	82.4 kDa

Gene Summary:

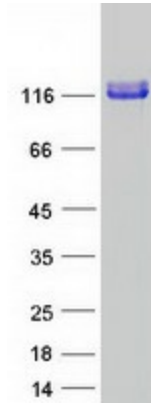
The protein encoded by this gene is found on the surface of platelets, monocytes, neutrophils, and some types of T-cells, and makes up a large portion of endothelial cell intercellular junctions. The encoded protein is a member of the immunoglobulin superfamily and is likely involved in leukocyte migration, angiogenesis, and integrin activation. [provided by RefSeq, May 2010]

Product images:


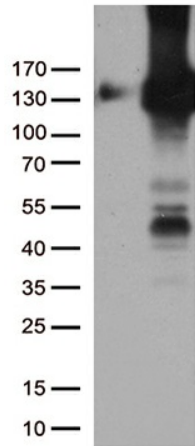
Circular map for RC208654



Western blot validation of overexpression lysate (Cat# [LY424716]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208654 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PECAM1 protein (Cat# [TP308654]). The protein was produced from HEK293T cells transfected with PECAM1 cDNA clone (Cat# RC208654) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PECAM1 (Cat# RC208654, 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-PECAM1 mouse monoclonal antibody (Cat# [UM500032]).