

Product datasheet for **RC208937**

CD146 (MCAM) (NM_006500) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD146 (MCAM) (NM_006500) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD146
Synonyms:	CD146; HEMCAM; MeICAM; METCAM; MUC18
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC208937 representing NM_006500
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCTTCCCAGGCTGGTCTGCGCCTTCTTGCTCGCCGCTGTGCTGCTGTCTCGCGTCGCGGGTG
 TGCCCGGAGAGGCTGAGCAGCCTGCGCCTGAGCTGGTGGAGGTGGAAGTGGGCAGCACAGCCCTTCTGAA
 GTGCGGCCTCTCCAGTCCCAAGCAACCTCAGCCATGTCGACTGGTTTTCTGTCCACAAGGAGAAGCGG
 ACGCTCATCTCCGTGTGCGCCAGGGCCAGGGCCAGAGCGAACCTGGGGAGTACGAGCAGCGGCTCAGCC
 TCCAGGACAGAGGGGCTACTCTGGCCCTGACTCAAGTCACCCCCAAGACGAGCGCATCTTCTTGCCAA
 GGGCAAGCGCCCTCGGTCCAGGAGTACCAGTCCAGCTCCGCGTCTACAAAGCTCCGGAGGAGCCAAAC
 ATCCAGGTCAACCCCTGGGCATCCCTGTGAACAGTAAGGAGCCTGAGGAGGTGCTACCTGTGTAGGGA
 GGAACGGTACCCATTCTCAAGTCATCTGGTACAAGAATGGCCGGCCTCTGAAGGAGGAGAAGAACCG
 GGTCCACATTAGTCGTCAGACTGTGGAGTCGAGTGGTTTTGTACACCTGCAGAGTATTCTGAAGGCA
 CAGCTGGTTAAAGAAGACAAAGATGCCAGTTTTACTGTGAGCTCAACTACCGGCTGCCAGTGGGAACC
 ACATGAAGGAGTCCAGGGAAGTCAACGTCCTGTTTTCTACCCGACAGAAAAAGTGTGGTGGAAGTGGA
 GCCCGTGGGAATGCTGAAGGAAGGGGACCGCGTGGAAATCAGGTGTTGGCTGATGGCAACCCCTCCACCA
 CACTTCAGCATCAGCAAGCAGAACCCAGCACCAGGGAGGCAGAGGAAGAGACAACCAACGACAACGGGG
 TCCTGGTCTGGAGCCTGCCCGAAGGAACACAGTGGGCGCTATGAATGTCAGGGCCTGGACTTGGACAC
 CATGATATCGTCTGAGTGAACCACAGAACTACTGGTGAACATATGTGTCTGACGTCCGAGTGAGTCCC
 GCAGCCCTGAGAGACAGGAAGGCAGCAGCCTCACCTGACCTGTGAGGCAGAGAGTAGCCAGGACCTCG
 AGTTCAGTGGCTGAGAGAAGAGACAGGCCAGGTGCTGGAAAGGGGGCCTGTGCTTCAGTTGCATGACCT
 GAAACGGGAGGCAGGAGCGGCTATCGCTGCGTGGCGTCTGTGCCAGCATACCCGGCCTGAACCGCACA
 CAGCTGGTCAACGTGGCCATTTTTGGCCCCCTTGGATGGCATTCAAGGAGAGGAAGGTGTGGGTGAAAG
 AGAATATGGTGTGAATCTGTCTTGTGAAGCGTCAGGGCACCCCGGCCACCATCTCCTGGAACGTCAA
 CGGCACGGCAAGTGAACAAGACCAAGATCCACAGCGAGTCTGAGCACCTGAATGTCCTCGTGACCCCG
 GAGCTGTTGGAGACAGGTGTTGAATGCACGGCCTCCAACGACCTGGGCAAAAACACCAGCATCCTCTTCC
 TGGAGCTGGTCAATTTAACCACCCTCACACCAGACTCCAACACAACCACTGGCCTCAGCACTTCCACTGC
 CAGTCTCATACCAGAGCCAACAGCACCTCCACAGAGAGAAAGCTGCCGGAGCCGGAGAGCCGGGGCGTG
 GTCATCGTGGCTGTGATTGTGTGCATCCTGGTCTGGCGGTGCTGGGCGCTGTCTCTATTTCTCTATA
 AGAAGGGCAAGCTGCCGTGCAGGCGCTCAGGGAAGCAGGAGATCACGCTGCCCCCGTCTCGTAAGAGCGA
 ACTTGTAGTTGAAGTTAAGTCAGATAAGCTCCCAGAAGAGATGGGCCCTCTGCAGGGCAGCAGCGGTGAC
 AAGAGGGCTCCGGGAGACCAGGGAGAGAAATACATCGATCTGAGGCAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208937 representing NM_006500
Red=Cloning site Green=Tags(s)

MGLPRLVCAFLLAACCCCPRVAGVPGEAEQPAPELVEVEVGSTALLKCGLSQSQGNLSHVDWFSVHKEKR
 TLIIFRVRQGGQSEPGEYEQRLSLQDRGATLAL TQVTPQDERIFLCQGKRPRSQEYRIQLRVYKAPEEPN
 IQVNPLGIPVNSKEPEEVATCVGRNGYPIPQVIWYKNGRPLKEEKNRVHIQSSQTVESSGLYTLQSILKA
 QLVKEDKDAQFYCELNYRLPSGNHMKESREVTVPVFYFTEKVVLEVEPVGMLKEGDRVEIRCLADGNPPP
 HFSISKQNPSTREAEETTNDNGVLVLEPARKEHSGRYECQGLDLDTMISLLSEPQELLVNYVSDVRVSP
 AAPERQEGSSLTLTCEAESSQDLEFQWLREETGQVLERGPVLQLHDLKREAGGGYRCVASVPSIPGLNRT
 QLVNVAIFGPPWMAFKERKVVWKENMVLNLSCEASGHRPRTISWNVNGTASEQDQDPQVRLSTLNVLVTP
 ELLETGVECTASNDLGKNTSILFLELVNLTTLPDSNTTGLSTSTASPHTRANSTSTERKLPESRQV
 VIVAVIVCILVLAVLAVLYFLYKKGKLPARRSGKQEITLPPSRKSELVVEVKSDKLPEEMGLLQGSQSD
 KRAPGDQGEKYIDLRH

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3573_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006500

ORF Size: 1938 bp

OTI Disclaimer: 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.

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](#)

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:

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_006500.3](#)

RefSeq Size: 3332 bp

RefSeq ORF: 1941 bp

Locus ID: 4162

UniProt ID: [P43121](#)

Cytogenetics: 11q23.3

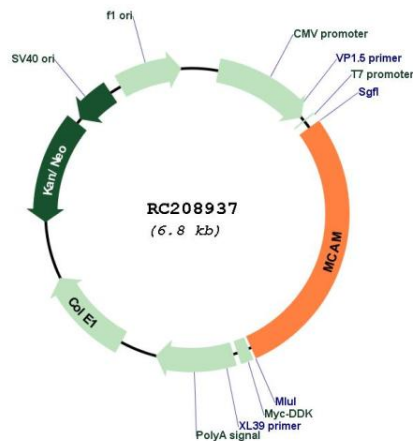
Domains: ig, IGc2, IG

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

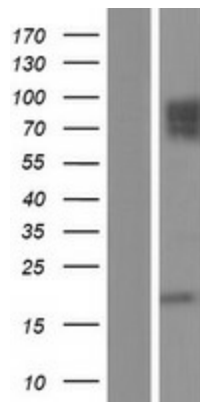
MW: 71.4 kDa

Gene Summary:

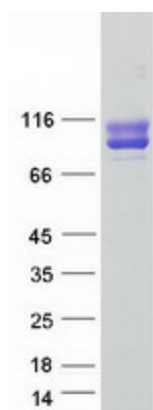
Plays a role in cell adhesion, and in cohesion of the endothelial monolayer at intercellular junctions in vascular tissue. Its expression may allow melanoma cells to interact with cellular elements of the vascular system, thereby enhancing hematogeneous tumor spread. Could be an adhesion molecule active in neural crest cells during embryonic development. Acts as surface receptor that triggers tyrosine phosphorylation of FYN and PTK2/FAK1, and a transient increase in the intracellular calcium concentration.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for RC208937



Western blot validation of overexpression lysate (Cat# [LY416601]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208937 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MCAM protein (Cat# [TP308937]). The protein was produced from HEK293T cells transfected with MCAM cDNA clone (Cat# RC208937) using MegaTran 2.0 (Cat# [TT210002]).