

Product datasheet for **RG208937**

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:	TurboGFP
Symbol:	CD146
Synonyms:	CD146; HEMCAM; MeICAM; METCAM; MUC18
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208937 representing NM_006500
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGGCTTCCCAGGCTGGTCTGCGCCTTCTTGCTCGCCGCTGTGCTGCTGTCTCGCGTTCGCGGGT
 TGCCCGGAGAGGCTGAGCAGCCTGCGCCTGAGCTGGTGGAGGTGGAAGTGGGCAGCACAGCCCTTCTGAA
 GTGCGGCCTCTCCAGTCCCAAGCAACCTCAGCCATGTCGACTGGTTTTCTGTCCACAAGGAGAAGCGG
 ACGCTCATCTCCGTGTGCGCCAGGGCCAGGGCCAGAGCGAACCTGGGGAGTACGAGCAGCGGCTCAGCC
 TCCAGGACAGAGGGGCTACTCTGGCCCTGACTCAAGTACCCCCAAGACGAGCGCATCTTCTGTGCCA
 GGGCAAGCGCCCTCGGTCCAGGAGTACCGCATCCAGCTCCGCGTCTACAAAGCTCCGGAGGAGCCAAAC
 ATCCAGGTCAACCCCTGGGCATCCCTGTGAACAGTAAGGAGCCTGAGGAGTTCGCTACCTGTGTAGGGA
 GGAACGGTACCCATTCTCAAGTCATCTGGTACAAGAATGGCCGGCCTCTGAAGGAGGAGAAGAACCG
 GGTCCACATTAGTCGTCAGACTGTGGAGTCGAGTGGTTTGTACACCTGCAGAGTATTCTGAAGGCA
 CAGCTGGTTAAAGAAGACAAAGATGCCAGTTTTACTGTGAGCTCAACTACCGGCTGCCAGTGGGAACC
 ACATGAAGGAGTCCAGGGAAGTACCCGTCCTGTTTTCTACCCGACAGAAAAAGTGTGGCTGGAAGTGA
 GCCCGTGGGAATGCTGAAGGAAGGGGACCGCTGGAATCAGGTGTTGGCTGATGGCAACCCCTCCACCA
 CACTTCAGCATCAGCAAGCAGAACCCAGCACCAGGGAGGAGGAGGAAGAGACAACCAACGACAACGGGG
 TCCTGGTCTGGAGCCTGCCCGAAGGAACACAGTGGGCGCTATGAATGTCAGGGCCTGGACTTGGACAC
 CATGATATCGTCTGAGTGAACACAGGAAGTACTGGTGAACATATGTGTCTGACGTCAGTGGAGTCCC
 GCAGCCCTGAGAGACAGGAAGGACAGCCTCACCTGACCTGTGAGGCAGAGAGTACCCAGGACCTCG
 AGTTCAGTGGCTGAGAGAAGAGACAGGCCAGGTGCTGGAAAGGGGGCCTGTGCTCAGTTGCATGGACCT
 GAAACGGGAGGCAGGAGCGGCTATCGCTGCGTGGCGTCTGTGCCAGCATACCCGGCCTGAACCGCACA
 CAGCTGGTCAACGTGGCCATTTTGGCCCCCTTGGATGGCATTCAAGGAGAGGAAGGTGTGGGTGAAAG
 AGAATATGGTGTGAATCTGTCTGTGAAGCGTCAGGGCACCCCGGCCACCATCTCTGGAACGTCAA
 CGGCACGGCAAGTGAACAAGACCAAGATCCACAGCGAGTCTGAGCACCCCTGAATGTCCTCGTACCCCG
 GAGCTGTTGGAGACAGGTGTTGAATGCACGGCCTCCAACGACCTGGGCAAAAACACCAGCATCCTCTTCC
 TGGAGCTGGTCAATTTAACCACCCTCACACCAGACTCCAACACAACCACTGGCCTCAGCACTTCCACTGC
 CAGTCTCATACCAGAGCAACAGCACCTCCACAGAGAGAAAGCTGCCGGAGCCGGAGAGCCGGGGCGTG
 GTCATCGTGGCTGTGATTGTGTGCATCCTGGTCTGGCGGTGCTGGGCGTGTCTCTATTTCTCTATA
 AGAAGGGCAAGCTGCCGTGCAGGCGCTCAGGGAAGCAGGAGATCACGCTGCCCCCGTCTCGTAAGAGCGA
 ACTTGTAGTTGAAGTTAAGTCAGATAAGCTCCCAGAAGAGATGGGCCCTCTGCAGGGCAGCAGCGGTGAC
 AAGAGGGCTCCGGGAGACCAGGGAGAGAAATACATCGATCTGAGGCAT

ACGCGTACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG208937 representing NM_006500
 Red=Cloning site Green=Tags(s)

MGLPRLVCAFLLAACCCPRVAGVPGAEQPAPELVEVEVGSTALLKCGLSQSQGNLSHVDWFSVHKEKR
 TLIFRVRQGQGGQSEPGEYEQRLSLQDRGATLALQVTPQDERIFLCQKRPQSQEYRIQLRVYKAPEEPN
 IQVNPGLIPVNSKEPEEVATCVGRNGYPIQVIWYKNGRPLKEEKNRVHIQSSQTVESGLYTLQSIKLA
 QLVKEDKDAQFYCELNYRLPSGNHMKESREVTVPVFPYTEKVVLEVEPVGMLKEGDRVEIRCLADGNPPP
 HFSISKQNPSTREAEETDNDNGVLVLEPARKEHSGRYECQGLDLDTMISLLSEPQELLVNYVSDVRVSP
 AAPERQEGSSLTLTCEAESSQDLEFQWLREETGQVLERGPVQLHDLKREAGGGYRCVASVPSIPGLNRT
 QLVNVAIFGPPWMAFKERKVVWKENMVLNLSCEASGHPRPTISWNVNGTASEQDQDPQVRLSTLNVLVTP
 ELLETGVECTASNDLGKNTSILFLELVNLTTLTPDSNTTGLSTSTASPHTRANSTSTERKLPPEPSRGV
 VIVAVIVCILVLAVLGAVLYFLYKKGKLPARRSGKQEITLPPSRKSELVVEVKSDDLPEEMGLLQSSGD
 KRAPGDQGEKYIDLRH

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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.

RefSeq: [NM_006500.2](#), [NP_006491.2](#)

RefSeq Size: 3332 bp

RefSeq ORF: 1941 bp

Locus ID: 4162

UniProt ID: [P43121](#)

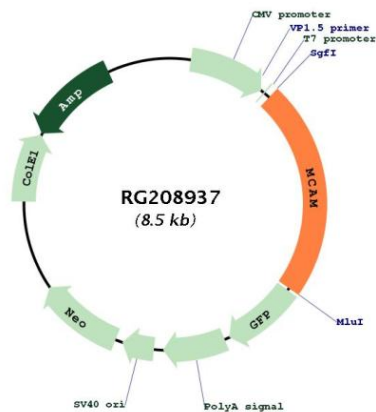
Cytogenetics: 11q23.3

Domains: ig, IGC2, IG

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

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 RG208937