

## Product datasheet for **RC213417**

### CD56 (NCAM1) (NM\_001076682) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD56 (NCAM1) (NM_001076682) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD56
Synonyms:	CD56; MSK39; NCAM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC213417 representing NM\_001076682  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCTGCAAACCTAAGGATCTCATCTGGACTTTGTTTTCTCTGGAACTGCAGTTTCTCTGCAGTGGATA  
TTGTTCCAGCCAGGGGAGATCAGCGTTGGAGAGTCCAAATTCTTATGCCAAGTGGCAGGAGATGC  
CAAAGATAAAGACATCTCCTGGTTCTCCCCAATGGAGAAAAGCTCACCCCAAACAGCAGCGGATCTCA  
GTGGTGTGGAATGATGATTCTCCTCCACCCTCACCATCTATAACGCCAACATCGACGACCCGGCATT  
ACAAGTGTGTGGTTACAGGCGAGGATGGCAGTGTGAGTGTGAGGCGCCACCGTCAACGTGAAGATCTTTCAGAA  
GCTCATGTTCAAGAATGCGCCAACCCACAGGAGTTCGGGAGGGGGAAGATGCCGTGATTGTGTGTGAT  
GTGGTCAGCTCCCTCCCAACCATCATCTGAAACACAAGGCCGAGATGTCATCTGAAAAAAGATG  
TCCGATTCATAGTCTGTCCAACAACCTACCTGCAGATCCGGGGCATCAAGAAAACAGATGAGGGCCTTA  
TCGCTGTGAGGGCAGAATCCTGGCAGGGGGGAGATCAACTTCAAGGACATTCAGGTGATTGTGAATGTG  
CCACCTACCATCCAGGCCAGGCAGAATATTGTGAATGCCACCGCAACCTCGGCCAGTCCGTACCCCTGG  
TGTGCGATGCCGAAGGCTTCCCAGAGCCACCATGAGCTGGACAAGGATGGGGAACAGATAGAGCAAGA  
GGAAGACGATGAGAAGTACATCTTCAGCGACGATAGTTCCAGCTGACCATCAAAAAGGTGGATAAGAAC  
GACGAGGCTGAGTACATCTGCATTGCTGAGAACAAGGCTGGCAGCAGGATGCGACCATCCACCTCAAAG  
TCTTTGCAAAAACCAAAATCACATATGTAGAGAACCAGACTGCCATGGAATTAGAGGAGCAGGTCACTCT  
TACCTGTGAAGCCTCCGGAGACCCATTCCCTCCATCACCTGGAGGACTTCTACCCGGAACATCAGCAGC  
GAAGAAAAGACTCTGGATGGGCACATGGTGGTGCAGTGCATGCCGTCAGCATGCCGTCAGTGCATCCAGTC  
CATGTACCTTGAAGTGAATATGCCCAAGCTACAGGGCCCTGTGGCTGTGTACACTTGGGAGGGGAAC  
CAGGTGAACATCACCTGCGAGGATTTTGCCTATCCCAGTGCCACGATCTCATGGTTTCGGGATGGCCAGC  
TGCTGCCAAGCTCCAATTACAGCAATATCAAGATCTACAACACCCCTCTGCCAGCTATCTGGAGGTGAC  
CCCAGACTCTGAGAATGATTTTGGGAACTACAACGTACTGCAGTGAACCGCATTGGGCAGGAGTCTTGG  
GAATTCATCCTTGTCAAGCAGACACCCCTCTCACCATCCATCGACCAGGTGGAGCCATACTCCAGCA  
CAGCCCAGGTGCAGTTTGTGAACAGAGGCCACAGGTGGGTGCCCATCCTCAAATACAAAGCTGAGTG  
GAGAGCAGTTGGTGAAGAAGTATGGCATTCCAAGTGGTATGATGCCAAGGAAGCCAGCATGGAGGGCATC  
GTCACCATCGTGGCCTGAAGCCGAAACAACGTACGCCGTAAGGCTGGCGGCGCTCAATGGCAAAGGGC  
TGGGTGAGATCAGCGCGCCTCCGAGTTCAAGACGCAGCCAGTCCATAGCCCTCCTCCACCGGCATCTGC  
TAGCTCGTCTACCCTGTTCCATTGTCTCCACCAGATACAACCTGGCCTCTTCTGCCCTTGCAACCACA  
GAACCAGCTAAAGGGGAACCCAGTGCACCTAAGCTCGAAGGGCAGATGGGAGAGGATGGAACCTCTATTA  
AAGTGAACCTGATCAAGCAGGATGACGGCGGCTCCCCATCAGACACTATCTGGTCAGGTACCGAGCGCT  
CTCCTCCGAGTGGAAACCAGAGATCAGGCTCCCGTCTGGCAGTGACCACGTATGCTGAAGTCCCTGGAC  
TGGAAATGCTGAGTATGAGGTCTACGTGGTGGCTGAGAACCAGCAAGGAAAATCCAAGGCGGCTCATTTTG  
TGTTCCAGGACCTCGCCCCAGCCACAGCCATCCCAGCAACCTTGGGAGGCAATTTGTCATCTACACCTT  
TGCTCATTGCTTTTCTCTGCAGTGACTTCTTTTGTCTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC213417 representing NM\_001076682  
 Red=Cloning site Green=Tags(s)

MLQTKDLIWLFFLGTAVSLQVDIVPSQGEISVGESEKFFLCQVAGDAKDKDISWFSPNGEKLTPNQQRIS  
 VVWNDDSSSTLTIYNANIDDAGIYKCVVTGEDGSESEATVNVKIFQKLMFNAPTQEFREGEDAVIVCD  
 VVSSLPPTIIWKHKGRDVLKGDVRFIVLSNNYLQIRGIKKTDEGTYRCEGRILARGEINFKDIQIVNV  
 PPTIQRQNIIVNATANLQGSVTLVCDAEGFPEPTMSWTKDGEQIEQEEDDEKYIFSDSSQLTIKKVDKN  
 DEAEYICIAENKAGEQDATIHLKVFAPKPKITYVENQTAMELEEQVTLTCEASGDPIPSITWRTSTRNISS  
 EEKTLDGHMVVRSHARVSSLTKLSIQYTDAGEYICTASNTIGQDSQSMYLEVQYAPKLQGPVAVYTWEGN  
 QVNITCEVFAYPSATISWFRDGLLPSSNYSNIKIYNTPSASYLEVTPDSENDGNYNCTAVNRIGQESL  
 EFILVQADTPSSPSIDQVEPYSSAQVQFDEPEATGGVPIKLYKAEWRVAGEEVWHSKWYDAKEASMEGI  
 VTIVGLKPETTYAVRLAALNGKGLGEISAASEFKTQPVHSPPPASASSSTPVPLSPPDTPWPLPALATT  
 EPAKGEPSAPKLEGQMGEDGNSIKVNLIKQDDGGSPIRHYLVRYRALSSEWKPEIRLPSGSDHVMLKSLD  
 WNAEYEVVVAENQQGSKAAHFVFR TSAQPTAIPATLGGNSASYTFVSLFFSAVTL LLLC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001076682

**ORF Size:** 2283 bp

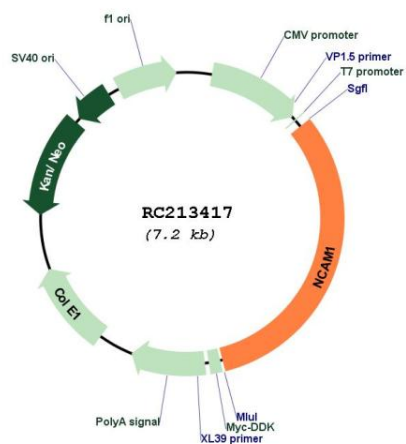
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>RefSeq:</b>	<a href="#">NM_001076682.4</a>
<b>RefSeq Size:</b>	4944 bp
<b>RefSeq ORF:</b>	2286 bp
<b>Locus ID:</b>	4684
<b>UniProt ID:</b>	<a href="#">P13591</a>
<b>Cytogenetics:</b>	11q23.2
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	Cell adhesion molecules (CAMs), Prion diseases
<b>MW:</b>	83.8 kDa
<b>Gene Summary:</b>	<p>This gene encodes a cell adhesion protein which is a member of the immunoglobulin superfamily. The encoded protein is involved in cell-to-cell interactions as well as cell-matrix interactions during development and differentiation. The encoded protein plays a role in the development of the nervous system by regulating neurogenesis, neurite outgrowth, and cell migration. This protein is also involved in the expansion of T lymphocytes, B lymphocytes and natural killer (NK) cells which play an important role in immune surveillance. This protein plays a role in signal transduction by interacting with fibroblast growth factor receptors, N-cadherin and other components of the extracellular matrix and by triggering signalling cascades involving FYN-focal adhesion kinase (FAK), mitogen-activated protein kinase (MAPK), and phosphatidylinositol 3-kinase (PI3K). One prominent isoform of this gene, cell surface molecule CD56, plays a role in several myeloproliferative disorders such as acute myeloid leukemia and differential expression of this gene is associated with differential disease progression. For example, increased expression of CD56 is correlated with lower survival in acute myeloid leukemia patients whereas increased severity of COVID-19 is correlated with decreased abundance of CD56-expressing NK cells in peripheral blood. Alternative splicing results in multiple transcript variants encoding distinct protein isoforms. [provided by RefSeq, Aug 2020]</p>

## Product images:



Circular map for RC213417