

Product datasheet for **RC239732**

CD56 (NCAM1) (NM_001242607) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD56 (NCAM1) (NM_001242607) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NCAM1
Synonyms:	CD56; MSK39; NCAM
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RC239732 representing NM_001242607
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCAAACAAAGGATCTCATCTGGACTTTGTTTTCTCTGGAACTGCAGTTTCTCTGCAGTGGATA
 TTGTTCCAGCCAGGGGAGATCAGCGTTGGAGAGTCCAAATCTTATGCCAAGTGGCAGGAGATGC
 CAAAGATAAAGACATCTCCTGGTTCTCCCCAATGGAGAAAAGCTCACCCCAAACAGCAGCGGATCTCA
 GTGGTGTGGAATGATGATTCTCCTCCACCCTCACCATCTATAACGCCAACATCGACGACCCGGCATT
 ACAAGTGTGTGGTTACAGGCGAGGATGGCAGTGTGAGTGTGAGGCGCCACCGTCAACGTGAAGATCTTTCAGAA
 GCTCATGTTCAAGAATGCGCCAACCCACAGGAGTTCGGGAGGGGGAAGATGCCGTGATTGTGTGTGAT
 GTGGTCAGCTCCCTCCCAACCATCATCTGAAACACAAGGCCGAGATGTCATCTGAAAAAAGATG
 TCCGATTCATAGTCTGTCCAACAACACTCTGCAGATCCGGGGCATCAAGAAAACAGATGAGGGCCTTA
 TCGCTGTGAGGGCAGAATCCTGGCACGGGGGAGATCAACTTCAAGGACATTCAGGTGATTGTGAATGTG
 CCACCTACCATCCAGGCCAGGCAGAATATTGTGAATGCCACCGCAACCTCGGCCAGTCCGTACCCCTGG
 TGTGCGATGCCGAAGGCTTCCCAGAGCCACCATGAGCTGGACAAGGATGGGGAACAGATAGAGCAAGA
 GGAAGACGATGAGAAGTACATCTTCAGCGACGATAGTTCCAGCTGACCATCAAAAAGGTGGATAAGAAC
 GACGAGGCTGAGTACATCTGCATTGCTGAGAACAAGGCTGGCGAGCAGGATGCGACCATCCACCTCAAAG
 TCTTTGCAAAAACCAAAATCACATATGTAGAGAACCAGACTGCCATGGAATTAGAGGAGCAGGTCACTCT
 TACCTGTGAAGCCTCCGGAGACCCATTCCCTCCATCACCTGGAGGACTTCTACCCGGAACATCAGCAGC
 GAAGAAAAGGCTTCGTGGACTCGACCAGAGAAGCAAGAGGTACATGCACCATGGAATGGCAAGTGGGCA
 GACAGAAAAGGACAGGCTGGCAGTGCAGTTTCCCAGGATCTCATGAGACTCTGGATGGACATGGTGGT
 GCGTAGCCATGCCCGTGTGTCGCTGACCCTGAAGAGCATCCAGTACACTGATGCCGGAGAGTACATC
 TGCACCGCCAGCAACACCATCGGCCAGGACTCCCAGTCCATGTACCTTGAAGTGCAATATGCCCAAAGC
 TACAGGGCCCTGTGGCTGTGTACACTTGGGAGGGGAACCAGGTGAACATCACCTGCGAGGTATTTGCCTA
 TCCCAGTGCCACGATCTCATGGTTTCGGGATGGCCAGCTGCTGCCAAGCTCCAATTACAGCAATATCAAG
 ATCTACAACACCCCTCTGCCAGCTATCTGGAGGTGACCCAGACTCTGAGAATGATTTTGGAACTACA
 ACTGTACTGCAGTGAACCGCATTGGGCAGGAGTCTTGGAAATTCATCCTTGTTCAGCAGACACCCCTC
 TTCACCATCCATCGACCAGGTGGAGCCATACTCCAGCACAGCCAGGTGCAGTTTGTGAAGCAGAGGCC
 ACAGGTGGGTGCCATCCTCAAATACAAGCTGAGTGGAGAGCAGTTGGTGAAGAAGTATGGCATTCCA
 AGTGGTATGATGCCAAGGAAGCCAGCATGGAGGGCATCGTACCATCGTGGGCCTGAAGCCGAAACAAC
 GTACGCCGTAAGGCTGGCGGCGCTCAATGGCAAAGGGCTGGGTGAGATCAGCGCGCCTCCGAGTTCAAG
 ACGCAGCCAGTCCAAGGGGAACCCAGTGCACCTAAGCTCGAAGGGCAGATGGGAGAGGATGGAACTCTA
 TTAAGTGAACCTGATCAAGCAGGATGACGGCGGCTCCCCATCAGACACTATCTGGTCAAGTACCGAGC
 GCTCTCCTCCGAGTGGAAACCAGAGATCAGGCTCCCGTCTGGCAGTGACCACGTGATGCTGAAGTCCCTG
 GACTGGAATGCTGAGTATGAGGTCTACGTGGTGGCTGAGAACCAGCAAGGAAAATCCAAGCGGCTCATT
 TTGTGTTCCAGACCTCGGCCAGCCACAGCCATCCCAGCCAACGGCAGCCACCTCAGGCTGAGCAC
 CGGGCCATCGTGGGCATCCTCATCGTCTCTTCTGCTGCTCCTGGTGGTTGTGGACATCACCTGCTAC
 TTCCTGAACAAGTGTGGCTGTTTCATGTGCATTGCGGTCAACCTGTGTGAAAAGCCGGGCCCGGGCCA
 AGGGCAAGGACATGGAGGAGGGCAAGGCCCTTCTCGAAAGATGAGTCCAAGGAGCCATCGTGGAGGT
 TCGAACGGAGGAGGAGAGGACCCCAAACCATGATGGAGGGAAACACAGAGCCCAACGAGACCAGGCCA
 CTGACGGAGCCCGAGAAGGGCCCGTAGAAGCAAGCCAGAGTGCAGGAGACAGAAACGAAGCCAGCGC
 CAGCCGAAGTCAAGACGGTCCCCAATGACGCCACAGACAAAGGAGAACGAGAGCAAAGCA

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239732 representing NM_001242607
 Red=Cloning site Green=Tags(s)

MLQTKDLIWTLFFLGTAVSLQVDIVPSQGEISVGESKFFLCQVAGDAKDKDISWFSPNGEKLTPNQQRIS
 VVWDDSSSTLTIYNANIDDAGIYKCVVTGEDGSESEATVNVKIFQKLMFNAPTQEFREGEDAVIVCD
 VVSSLPTTIIWKHKGRDVLKDKDVRFIVLSNNYLQIRGIKKTDEGTYRCEGRILARGEINFKDIQVIVNV
 PPTIARQNIIVNATANLQGSVTLVCDAEGFPEPTMSWTKDGEQIEQEEDDEKYIFSDSSQLTIKKVDKN
 DEAEYICIAENKAGEQDATIHLKVFAPKPKITYVENQTAMELEEQVTLTCEASGDPIPSITWRTSTRNISS
 EEKASWTRPEKQEVHAPWNWQVGRQKQAGSAGFPGSHETLDGHMVVRS HARVSSLTKSIQYTDAGEYI
 CTASNTIGQDSQSMYLEVQYAPKLQGPVAVYTWEGNQVNITCEVFAYPSATISWFRDQQLPSSNYSNIK
 IYNTPSASYLEVTPDSENFGNYNCTAVNRIGQESLEFILVQADTPSSPSIDQVEPYSSTAQVQFDEPEA
 TGGVPILKYKAEWRAVGEVWHSKWDYDAKEASMEGIVTIVGLKPETTYAVRLAALNGKGLGEISAASEFK
 TQPVQGEPSAPKLEGMGEDGNSIKVNLIKQDDGGSPIRHYLVRYRALSSEWKPEIRLPSGSDHVMLKSL
 DWNAEYEVVVAENQQGKSKAAHFVFR TSAQPTAIPANGSPTSGLSTGAIVGILIVIFVLLL VVVDITCY
 FLNKCGLFMCIANL CGKAGPGAKGKMEEGKAAF SKDESKEPIVEVRTEEERTPNHDGGKHTEPNETTP
 LTEPEKGPVEAKPECQETETKPAPA EVKTVPN DATQTKENESKA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

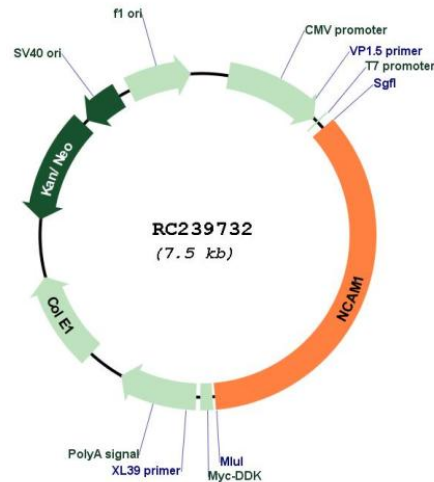
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001242607

ORF Size: 2652 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).

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_001242607.2](#)

RefSeq Size: 6070 bp

RefSeq ORF: 2655 bp

Locus ID: 4684

Cytogenetics: 11q23.2

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

Protein Pathways:	Cell adhesion molecules (CAMs), Prion diseases
MW:	97.8 kDa
Gene Summary:	<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>