

Product datasheet for **SC122608**

CD33 (NM_001772) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: CD33 (NM_001772) Human Untagged Clone
Tag: Tag Free
Symbol: CD33
Synonyms: p67; SIGLEC-3; SIGLEC3
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_001772 edited
 CAGACATGCCGCTGCTACTGCTGCCCTGCTGTGGCAGGGCCCTGGCTATGGATC
 CAAATTTCTGGCTGCAAGTGCAGGAGTCAGTGACGGTACAGGAGGTTTGTGCGTCTCG
 TGCCCTGCACTTTCTTCCATCCCATACCCCTACTACGACAAGAACTCCCCAGTTTCATGGTT
 ACTGGTTCCGGGAAGGAGCCATTATATCCGGGACTCTCCAGTGCCACAAACAAGCTAG
 ATCAAGAAGTACAGGAGGAGACTCAGGGCAGATTCGCTCCTTGGGGATCCCAGTAGGA
 ACAACTGCTCCCTGAGCATCGTAGACGCCAGGAGGAGGATAATGGTTCACTTCTTTT
 GGATGGAGAGAGGAAGTACCAAATACAGTTACAAATCTCCCCAGTCTCTGTGCATGTGA
 CAGACTTGACCCACAGGCCAAAATCCTCATCCCTGGCACTCTAGAACCCGGCCACTCCA
 AAAACCTGACCTGCTCTGTGCTCCTGGGCTGTGAGCAGGGAACACCCCGATCTTCTCCT
 GGTGTGACAGTGCCCCACCTCCCTGGGCCCCAGGACTACTCACTCCTCGGTGCTCATAA
 TCACCCACAGGCCCCAGGACCACGGCACCAACCTGACCTGTGAGGTGAAGTTCGCTGGAG
 CTGGTGTGACTACGGAGAGAACCATCCAGCTCAACGTCACCTATGTTCCACAGAACCCAA
 CAACTGGTATCTTTCCAGGAGATGGCTCAGGGAACAAGAGACCAGAGCAGGAGTGGTTC
 ATGGGGCATTGGAGGAGCTGGTGTACAGCCCTGCTCGCTCTTTGTCTCTGCCTCATCT
 TCTTCATAGTGAAGCCACAGGAGGAAAGCAGCCAGGACAGCAGTGGGCAGGAATGACA
 CCCACCTACCACAGGCTCAGCTCCCCGAAACACCAGAAGAAGTCCAAGTTACATGGCC
 CCACTGAAACCTCAAGCTGTTCAAGTGCCGCCCCACTGTGGAGATGGATGAGGAGCTGC
 ATTATGCTTCCCTCAACTTTTCATGGGATGAATCCTTCCAAGGACACTCCACCGAATACT
 CAGAGGTCAGGACCCAGTGAGGAACCCACAAGAGCATCAGGCTCAGCTAGAAGATCCACA
 TCCTCTACAGGTCGGGGACCAAAGGCTGATTTCTGGAGATTTAACACCCACAGGCAATG
 GGTTTATAGACATTATGTGAGTTTCTGCTATATTAACATCATCTTAGACTTTGCAAGCA
 GAGAGTCGTGGAATCAAATCTGTGCTCTTTCAATTTGCTAAGTGTATGATGTACACAAGC
 TCCTTAACCTTCCATGTCTCCATTTTCTTCTGTGAAGTAGGTATAAGAAGTCTATCT
 CATAGGGATGCTGTGAGCATTAAATAAAGGTACACATGGAAAAACAAAAAAAAAAAAAAAA
 AA
 AAAAAAA



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_001772 unedited TCAACATTTGTAATACGACTCACTATAGGGCAGGCCGCGAATTCCTGGATCAGACATGCC GCTGCTGCTACTGCTGCCCTGCTGTGGGCAGGGGCCCTGGCTATGGATCCAAATTTCTG GCTGCAAGTGCAGGAGTCAGTGACGGTACAGGAGGGTTTGTGCGTCTCGTGCCCTGCAC TTTCTTCCATCCCATACCCTACTACGACAAGAAGTCCCAAGTTCATGGTTACTGGTTCCG GGAAGGAGCCATTATATCCGGGGACTCTCCAGTGGCCACAAACAAGCTAGATCAAGAAGT ACAGGAGGAGACTCAGGGCAGATTCCGCCTCCTTGGGGATCCCAGTAGGAACAAGTCTC CCTGAGCATCGTAGACGCCAGGAGGAGGATAATGGTTTCACTTCTTTTCGGATGGAGAG AGGAAGTACCAAATACAGTTACAATCTCCCCAGCTCTCTGTGCATGTGACAGACTTGAC CCACAGGCCCAAATCCTCATCCCTGGCACTCTAGAACC CGCCACTCCAAAACTGAC CTGCTCTGTGCTCGGGCTGTGAGCAGGGAACCCCCGATCTTCTCCTGGTTGTGAGC TGCCCCACCTCCCTGGGCCAGGACTACTACTCCTCGGTGCTATAATCACCCCACG GCCCCAGACCACGCACCAACCTGACCTGTCAGGTGAAGTTTCGCTGAGCTGGTGTGAC TACGGAGAGAAACATCCAGCTCAACGTACCTATGTTCCACAGAACCCCACTGGTAT CTTTCCAGAGATGGCTCANGAACCCAGAACCCGACCAGGAGTGGTTTCATGGGGCCATTG GAGGAGCTGGTGTACAGCCCTGCTCGCTCCTTGCTCTGCCCATCTTNCCTCAAAGGG AAACCCCAAGGAGAAAACCCCGGACACCATTGGGCAGGAATGACACCCCC</p>
Restriction Sites:	Please inquire
ACCN:	NM_001772
Insert Size:	1508 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>
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.
RefSeq:	NM_001772.2 , NP_001763.2
RefSeq Size:	1452 bp

RefSeq ORF:	1095 bp
Locus ID:	945
UniProt ID:	P20138
Cytogenetics:	19q13.41
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Hematopoietic cell lineage
Gene Summary:	<p>Sialic-acid-binding immunoglobulin-like lectin (Siglec) that plays a role in mediating cell-cell interactions and in maintaining immune cells in a resting state (PubMed:10611343, PubMed:15597323, PubMed:11320212). Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans (PubMed:7718872). Upon engagement of ligands such as C1q or sialylated glycoproteins, two immunoreceptor tyrosine-based inhibitory motifs (ITIMs) located in CD33 cytoplasmic tail are phosphorylated by Src-like kinases such as LCK (PubMed:28325905, PubMed:10887109). These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:10556798, PubMed:10206955, PubMed:10887109). In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules (PubMed:10206955, PubMed:10887109). One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K (PubMed:15597323). [UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1), also known as CD33M.</p>