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Product datasheet for SC328501

CD33 (NM_001177608) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD33 (NM_001177608) Human Untagged Clone
Tag:	Tag Free
Symbol:	CD33
Synonyms:	p67; SIGLEC-3; SIGLEC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC328501 representing NM_001177608. Blue=Insert sequence Red=Cloning site Green=Tag(s) GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGCCGCTGCTGCTACTGCTGCCCCTGCTGTGGGCAGGGGCCCTGGCTATGGATCCAAATTTCTGGCTG CAAGTGCAGGAGTCAGTGACGGTACAGGAGGGTTTGTGCGTCCTCGTGCCCTGCACTTTCTTCCATCCC ATACCCTACTACGACAAGAACTCCCCAGTTCATGGTTACTGGTTCCGGGAAGGAGCCATTATATCCAGG GACTCTCCAGTGGCCACAAACAAGCTAGATCAAGAAGTACAGGAGGAGACTCAGGGCAGATTCCGCCTC CTTGGGGATCCCAGTAGGAACAACTGCTCCCTGAGCATCGTAGACGCCAGGAGGAGGGATAATGGTTCA TACTTCTTTCGGATGGAGAGAGGAAGTACCAAATACAGTTACAAATCTCCCCAGCTCTCTGTGCATGTG ACAGACTTGACCCACAGGCCCAAAATCCTCATCCCTGGCACTCTAGAACCCGGCCACTCCAAAAACCTG ACCTGCTCTGTGTCCTGGGCCTGTGAGCAGGGAACACCCCCGATCTTCTCCTGGTTGTCAGCTGCCCCC ACCTCCCTGGGCCCCAGGACTACTCACTCCTCGGTGCTCATAATCACCCCACGGCCCCAGGACCACGGC ACCAACCTGACCTGTCAGGTGAAGTTCGCTGGAGCTGGTGTGACTACGGAGAGAACCATCCAGCTCAAC GTCACCTATGTTCCACAGAACCCAACAACTGGTATCTTTCCAGGAGATGGCTCAGGGAAACAAGAGACC AGAGCAGGAGTGGTTCATGGGGCCATTGGAGGAGCTGGTGTTACAGCCCTGCTCGCTCTTTGTCTCTGC CTCATCTTCTTCATAGTGAAGACCCACAGGAGGAAAGCAGCCAGGACAGCAGTGGGCAGGAATGACACC CACCCTACCACAGGGTCAGCCTCCCCGGTACGTTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
Restriction Sites:	SgfI-MluI

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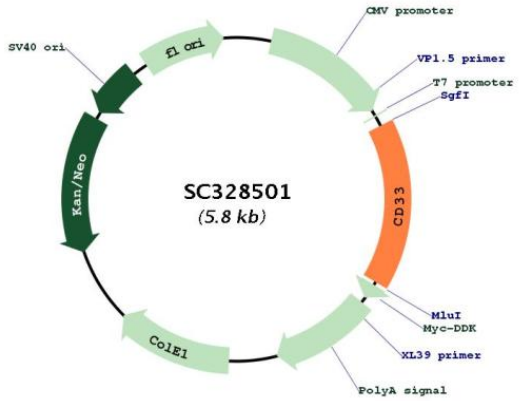
Plasmid Map:



ACCN:	NM_001177608
Insert Size:	933 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001177608.1
RefSeq Size:	1108 bp
RefSeq ORF:	933 bp

Locus ID:	945
UniProt ID:	P20138
Cytogenetics:	19q13.41
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Hematopoietic cell lineage
MW:	33.9 kDa
Gene Summary:	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 syalylated 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] Transcript Variant: This variant (3) differs in the 3' UTR and coding sequence compared to variant 1. The resulting isoform (3) has a shorter and distinct C-terminus compared to isoform 1.