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Product datasheet for SC127938

CD19 (NM_001770) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD19 (NM_001770) Human Untagged Clone
Tag:	Tag Free
Symbol:	CD19
Synonyms:	B4; CVID3
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

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>OriGene sequence for NM_001770 edited
AGGCCCCTGCCTGCCCCAGCATCCCCTGCGCGAAGCTGGGTGCCCCGGAGAGTCTGACCA
CCATGCCACCTCCTCGCCTCCTCTTCTTCCTCCTCTTCCTCACCCCCATGGAAGTCAGGC
CCGAGGAACCTCTAGTGGTGAAGGTGGAAGAGGGAGATAACGCTGTGCTGCAGTGCCTCA
AGGGGACCTCAGATGGCCCCACTCAGCAGCTGACCTGGTCTCGGGAGTCCCCGCTTAAAC
CCTTCTTAAAACTCAGCCTGGGGCTGCCAGGCCTGGGAATCCACATGAGGCCCCTGGCCA
TCTGGCTTTTCATCTTCAACGTCTCTCAACAGATGGGGGGCTTCTACCTGTGCCAGCCGG
GGCCCCCCTCTGAGAAGGCCTGGCAGCCTGGCTGGACAGTCAATGTGGAGGGCAGCGGGG
AGCTGTTCCGGTGGAATGTTTCGGACCTAGGTGGCCTGGGCTGTGGCCTGAAGAACAGGT
CCTCAGAGGGCCCCAGCTCCCCTTCCGGGAAGCTCATGAGCCCCAAGCTGTATGTGTGGG
CCAAAGACCGCCCTGAGATCTGGGAGGGAGAGCCTCCGTGTCTCCCACCGAGGGACAGCC
TGAACCAGAGCCTCAGCCAGGACCTCACCATGGCCCCTGGCTCCACACTCTGGCTGTCCT
GTGGGGTACCCCCTGACTCTGTGTCCAGGGGCCCCCTCTCCTGGACCCATGTGCACCCCA
AGGGGCCTAAGTCATTGCTGAGCCTAGAGCTGAAGGACGATCGCCCGGCCAGAGATATGT
GGGTAATGGAGACGGGTCTGTTGTTGCCCCGGGCCACAGCTCAAGACGCTGGAAAGTATT
ATTGTCACCGTGGCAACCTGACCATGTCATTCCACCTGGAGATCACTGCTCGGCCAGTAC
TATGGCACTGGCTGCTGAGGACTGGTGGCTGGAAGGTCTCAGCTGTGACTTTGGCTTATC
TGATCTTCTGCCTGTGTTCCCTTGTGGGCATTCTTCATCTTCAAAGAGCCCTGGTCCTGA
GGAGGAAAAGAAAGCGAATGACTGACCCCACCAGGAGATTCTTCAAAGTGACGCCTCCCC
CAGGAAGCGGGCCCCAGAACCAGTACGGGAACGTGCTGTCTCTCCCCACACCCACCTCAG
GCCTCGGACGCGCCCAGCGTTGGGCCGCAGGCCTGGGGGGCACTGCCCCGTCTTATGGAA
ACCCGAGCAGCGACGTCCAGGCGGATGGAGCCTTGGGGTCCCGGAGCCCGCCGGGAGTGG
GCCCAGAAGAAGAGGAAGGGGAGGGCTATGAGGAACCTGACAGTGAGGAGGACTCCGAGT
TCTATGAGAACGACTCCAACCTTGGGCAGGACCAGCTCTCCCAGGATGGCAGCGGCTACG
AGAACCCTGAGGATGAGCCCCTGGGTCCTGAGGATGAAGACTCCTTCTCCAACGCTGAGT
CTTATGAGAACGAGGATGAAGAGCTGACCCAGCCGGTCGCCAGGACAATGGACTTCCTGA
GCCCTCATGGGTCAGCCTGGGACCCCAGCCGGGAAGCAACCTCCCTGGGGTCCCAGTCCT
ATGAGGATATGAGAGGAATCCTGTATGCAGCCCCCCAGCTCCGCTCCATTCGGGGCCAGC
CTGGACCCAATCATGAGGAAGATGCAGACTCTTATGAGAACATGGATAATCCCGATGGGC
CAGACCCAGCCTGGGGAGGAGGGGGCCGCATGGGCACCTGGAGCACCAGGTGATCCTCAG
GTGGCCAGCCTGGATCTCCTCAAGTCCCCAAGATTCACACCTGACTCTGAAATCTGAAGA
CCTCGAGCAGATGATGCCAACCTCTGGAGCAATGTTGCTTAGGATGTGTGCATGTGTGTA
AGTGTGTGTGTGTGTGTGTGTGTGTATACATGCCAGTGACACTTCCAGTCCCCTTTGTAT
TCCTTAAATAAACTCAATGAGCTCTTCCA
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Restriction Sites: Please inquire

ACCN: NM_001770

Insert Size: 1671 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: no

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).

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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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001770.3, NP_001761.2
RefSeq Size:	1932 bp
RefSeq ORF:	1671 bp
Locus ID:	930
UniProt ID:	P15391
Cytogenetics:	16p11.2
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	B cell receptor signaling pathway, Hematopoietic cell lineage, Primary immunodeficiency
Gene Summary:	This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020] Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. This results in a shorter protein (isoform 2), compared to isoform 1.

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