

## Product datasheet for **SC328905**

### CD19 (NM\_001178098) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD19 (NM_001178098) Human Untagged Clone
Tag:	Tag Free
Symbol:	CD19
Synonyms:	B4; CVID3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_001178098 edited  
 AGGCCCTGCCTGCCCCAGCATCCCCTGCGCGAAGCTGGGTGCCCGGAGAGTCTGACCA  
 CCATGCCACCTCCTCGCCTCCTCTTCTTCTCCTCCTCCTCACCCTGGAAAGTCAGGC  
 CCGAGGAACCTCTAGTGGTGAAGGTGGAAGAGGGAGATAACGCTGTGCTGCAGTGCCTCA  
 AGGGGACCTCAGATGGCCCCACTCAGCAGCTGACCTGGTCTCGGGAGTCCCCGCTAAAC  
 CCTTCTTAAAACTCAGCCTGGGGCTGCCAGGCCTGGGAATCCACATGAGGCCCTGGCCA  
 TCTGGCTTTTTCATCTTCAACGTCTCTCAACAGATGGGGGGCTTCTACCTGTGCCAGCCGG  
 GGCCCCCTCTGAGAAGGCCTGGCAGCCTGGCTGGACAGTCAATGTGGAGGGCAGCGGGG  
 AGCTGTTCCGGTGAATGTTTCGACCTAGGTGGCCTGGGCTGTGGCCTGAAGAACAGGT  
 CCTCAGAGGGCCCCAGCTCCCCTCCGGGAAGCTCATGAGCCCCAAGCTGTATGTGTGGG  
 CCAAAGACCGCCTGAGATCTGGGAGGGAGAGCCTCCGTGTCTCCACCGAGGGACAGCC  
 TGAACCAGAGCCTCAGCCAGGACCTCACCATGGCCCTGGCTCCACACTCTGGTGTCTCT  
 GTGGGTACCCCTGACTCTGTGTCCAGGGGCCCTCTCCTGGACCCATGTGCACCCCA  
 AGGGCCCTAAGTCATTGTGCTGAGCCTAGAGCTGAAGGACGATCGCCCGCCAGAGATATGT  
 GGTAATGGAGACGGGTCTGTTGTTGCCCGGGCCACAGCTCAAGACGCTGGAAGTATT  
 ATTGTACCCGTGGCAACCTGACCATGTCATTCCACCTGGAGATCACTGCTCGGCCAGTAC  
 TATGGCACTGGTGTGAGGACTGGTGGCTGGAAGGTCTCAGCTGTGACTTTGGCTTATC  
 TGATCTTCTGCCTGTGTTCCCTTGTGGCATTCTTCATCTTCAAAGAGCCCTGGTCTGA  
 GGAGGAAAAGAAAGCGAATGACTGACCCACCAGGAGATTCTTCAAAGTACGCCTCCCC  
 CAGGAAGCGGGCCCCAGAACCAGTACGGGAACGTGCTGTCTCTCCCCACCCACCTCAG  
 GCCTCGGACGCGCCAGCGTTGGGCCGACAGCCTGGGGGGCACTGCCCGTCTTATGGAA  
 ACCCGAGCAGCGACGCTCCAGGCGGATGGAGCCTTGGGGTCCCGGAGCCCGCGGGAGTGG  
 GCCCAGAAAGAGGAAGGGGAGGGCTATGAGGAACCTGACAGTGAAGGAGTCCGAGT  
 TCTATGAGAACGACTCCAACCTTGGGCAGGACCACTCTCCAGGATGGCAGCGGTACG  
 AGAACCTGAGGATGAGCCCTGGGTCCTGAGGATGAAGACTCCTTCTCCAACGCTGAGT  
 CTTATGAGAACGAGGATGAAGAGCTGACCCAGCCGGTCGCCAGGACAATGGACTTCTGA  
 GCCCTCATGGGTGAGCCTGGGACCCAGCCGGGAAGCAACCTCCCTGGCAGGGTCCCAGT  
 CCTATGAGGATATGAGAGGAATCCTGTATGCAGCCCCCAGCTCCGCTCCATTCCGGGCC  
 AGCCTGGACCCAATCATGAGGAAGATGCAGACTTATGAGAACATGGATAATCCCGATG  
 GGCCAGACCCAGCCTGGGAGGAGGGGGCCGATGGGCACCTGGAGCACCAGGTGATCCT  
 CAGGTGGCCAGCCTGGATCTCCTCAAGTCCCCAAGATTACACCTGACTCTGAAATCTGA  
 AGACCTCGAC

**Restriction Sites:** Please inquire

**ACCN:** NM\_001178098

**Insert Size:** 1800 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001178098.1.
<b>Components:</b>	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>	<u><a href="#">NM_001178098.1</a></u> , <u><a href="#">NP_001171569.1</a></u>
<b>RefSeq Size:</b>	1968 bp
<b>RefSeq ORF:</b>	1674 bp
<b>Locus ID:</b>	930
<b>UniProt ID:</b>	<u><a href="#">P15391</a></u>
<b>Cytogenetics:</b>	16p11.2
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	B cell receptor signaling pathway, Hematopoietic cell lineage, Primary immunodeficiency
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>