

## Product datasheet for **SC101240**

### CD8A (NM\_171827) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD8A (NM_171827) Human Untagged Clone
Tag:	Tag Free
Symbol:	CD8A
Synonyms:	CD8; Leu2; p32
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM\_171827 edited  
ATGGCCTTACCAGTGACCGCCTTGCTCCTGCCGCTGGCCTTGCTGCTCCACGCCCGCAGG  
CCGAGCCAGTTCCGGGTGTCGCCGCTGGATCGGACCTGGAACCTGGGCGAGACAGTGGAG  
CTGAAGTGCCAGGTGCTGCTGTCCAACCCGACGTCGGGCTGCTCGTGGCTCTCCAGCCG  
CGCGGCGCCGCCAGTCCCACCTTCTCCTATACCTCTCCAAAACAAGCCCAAGGCG  
GCCGAGGGGCTGGACACCCAGCGTTCTCGGGCAAGAGTTGGGGGACACCTTCGTCTCTC  
ACCCTGAGCGACTTCGCCGAGAGAACGAGGGCTACTATTTCTGCTCGGCCCTGAGCAAC  
TCCATCATGTACTTCAGCACTTCGTGCCGGTCTTCTGCCAGCGAAGCCACCACGACG  
CCAGCGCCGCGACCACCAACACCGGCGCCACCATCGCGTCGAGCCCTGTCCCTGCGC  
CCAGAGGCGTGCCGCCAGCGGGGGGGCGCAGGAACCGAAGACGTGTTTGAATGT  
CCCCGGCCTGTGGTCAAATCGGGAGACAAGCCAGCCTTTCGGCGAGATACGTCTAA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_171827 unedited CCCCCGTTAGAAATTTGTATACGACTCATATAGGCGGCCTGCGAATCGGCACCAGGAAGC CAGCAGCGTCTGGGGAGCGCGTCATGGCCTTACCAGTGACCGCCTTGCTCCTGCCGCTG GCCTTGCTGCTCCACGCCGCCAGGCCGAGCCAGTTCGGGTGTCGCCGCTGGATCGGACC TGGAACTGGGCGAGACAGTGGAGCTGAAGTGCCAGGTGCTGTGTTCAACCCGACGTG GGCTGCTCGTGGCTCTCCAGCCGCGCGCCGCCAGTCCCACCTTCTCTATAC CTCTCCAAAACAAGCCCAAGGCGCGGAGGGGCTGGACACCCAGCGGTTCTCGGGCAAG AGGTTGGGGGACACCTTCGTCTCACCTGAGCGACTTCGCCGAGAGAACGAGGGCTAC TATTTCTGCTCGGCCCTGAGCAACTCCATCATGTACTTCAGCCACTTCGTGCCGCTCTC CTGCCAGCGAAGCCACCACGACGCCAGCGCCGACCACCAACACCGCGGCCACCATC GCGTCGACGCCCTGTCCCTGCGCCAGAGGCGTGCCGGCCAGCGCGGGGGGCGCTAGG GAACCGAAGACGTGTTTGCAAATGTCCCGGCCTGTGGTCAAATCGGGAGACAAGCCAG CCTTCGCGGAGATACGTCTAACCTGTGCAACAGCCACTACATTACTTCAAAGTATGAT CCTTCCTTTGAGGGAGCAGNCCTTCCCTTTCATTNTTCCAGNCTTCCCTCTGTGTA TTCATTCTCATGAGTATTATTTTCATGGGGCGGGNGGGGGCAAAGCCTACCTTTTCCTT TATGTGTTTGACGGCAAACAACAACTAGGTTAAATCTACAGTACCACCAGG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_171827
<b>OTI Disclaimer:</b>	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).
<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>	<a href="#">NM_171827.1</a> , <a href="#">NP_741969.1</a>
<b>RefSeq Size:</b>	2150 bp
<b>RefSeq ORF:</b>	597 bp
<b>Locus ID:</b>	925
<b>UniProt ID:</b>	<a href="#">P01732</a>
<b>Cytogenetics:</b>	2p11.2
<b>Protein Families:</b>	Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	Antigen processing and presentation, Cell adhesion molecules (CAMs), Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway

**Gene Summary:**

The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8 antigen acts as a coreceptor with the T-cell receptor on the T lymphocyte to recognize antigens displayed by an antigen presenting cell in the context of class I MHC molecules. The coreceptor functions as either a homodimer composed of two alpha chains or as a heterodimer composed of one alpha and one beta chain. Both alpha and beta chains share significant homology to immunoglobulin variable light chains. This gene encodes the CD8 alpha chain. Multiple transcript variants encoding different isoforms have been found for this gene. The major protein isoforms of this gene differ by the presence or absence of a transmembrane domain and thus differ in being a membrane-anchored or secreted protein. [provided by RefSeq, May 2020]

**Transcript Variant:** This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting protein (isoform 2) lacks an internal segment including the transmembrane domain compared to isoform 1, resulting in a secreted protein. **Sequence Note:** This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.