

## Product datasheet for **SC322577**

### CD8A (NM\_001768) Human Untagged Clone

#### Product data:

|                           |                                       |
|---------------------------|---------------------------------------|
| Product Type:             | Expression Plasmids                   |
| Product Name:             | CD8A (NM_001768) Human Untagged Clone |
| Tag:                      | Tag Free                              |
| Symbol:                   | CD8A                                  |
| Synonyms:                 | CD8; Leu2; p32                        |
| Mammalian Cell Selection: | Neomycin                              |
| Vector:                   | pCMV6-AC (PS100020)                   |
| E. coli Selection:        | Ampicillin (100 ug/mL)                |



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**Fully Sequenced ORF:** >OriGene sequence for SC322577  
 GCGTCATGGCCTTACCAGTGACCGCCTTGCTCCTGCCGCTGGCCTTGCTGCTCCACGCCG  
 CCAGGCCGAGCCAGTTCCGGGTGTCGCCGCTGGATCGGACCTGGAACCTGGGCGAGACAG  
 TGGAGCTGAAGTGCCAGGTGCTGCTGTCCAACCCGACGTGGGCTGCTCGTGGCTTTCC  
 AGCCGCGCGGCCGCCAGTCCCACCTTCTCCTATACCTCTCCAAAAACAAGCCCA  
 AGCGCGCCGAGGGGCTGGACACCCAGCGTTCTCGGCAAGAGGTTGGGGACACCTTCG  
 TCCTCACCTGAGCGACTTCGCCGAGAGAACGAGGGCTGCTATTTCTGCTCGGCCCTGA  
 GCAACTCCATCATGTACTTCAGCCACTTCGTGCCGGTCTTCTGCCAGCGAAGCCACCA  
 CGACGCCAGCGCCGACCACCAACACCGGCCACCATCGCGTCGACGCCCTGTCCC  
 TGCGCCAGAGGCGTGCCGCCAGCGCGGGGGCGCAGTGCACACGAGGGGGCTGGACT  
 TCGCCTGTGATATCTACATCTGGGCGCCCTTGGCCGGGACTTGTGGGTCTTCTCTGT  
 CACTGGTTATCACCTTTACTGCAACCACAGGAACCGAAGACGTGTTTCAAATGTCCCC  
 GGCCTGTGGTCAAATCGGGAGACAAGCCAGCCTTTCGGCAGATACGTCTAACCTGTG  
 CAACAGCCACTACATTACTTCAAAGTACCTTCTTTTGGGGAGCAAGTCTTCCC  
 TTTCATTTTTCCAGTCTTCTCCTGTGTATTCTCATGATTATTATTTAGTGGG  
 GCGGGGTGGGAAAGATTACTTTTTCTTTATGTGTTGACGGGAAACAAAAGTAGGTAAA  
 ATCTACAGTACACCACAAGGGTCAATACTGTTGTGCGCACATCGCGGTAGGGCGTGA  
 AAGGGCAGGCCAGAGCTACCCGAGAGTTCTCAGAATCATGCTGAGAGAGCTGGAGGCA  
 CCCATGCCATCTCAACCTTTCGCCCGCTTTTACAAAGGGGGAGGCTAAAGCCAGAG  
 ACAGCTTGATCAAAGGCACACAGCAAGTCAAGGTTGGAGCAGTAGCTGGAGGGACCTGT  
 CTCCCAGCTCAGGGCTCTTCTCCACACCATTCAGGTCTTCTTCCGAGGCCCTGTG  
 TCAGGGTGAGGTGCTTGAAGTCTCAACGGCAAGGGAACAAGTACTTCTTGATACCTGGGA  
 TACTGTGCCAGAGCCTCGAGGAGGTAATGAATTAAGAAGAGAACTGCCTTTGGCAGAG  
 TTCTATAATGTAACAATATCAGACTTTTTTTTTTATAATCAAGCCTAAAATTGTATAGA  
 CCTAAAATAAAATGAAGTGGTGAGCTTAACCCTGAAAATGAATCCCTCTATCTTAAAG  
 AAAATCTCTGTGAAACCCCTATGTGGAGGCGGAATTGCTCTCCAGCCCTTGATTGCAG  
 AGGGGCCCATGAAAGAGGACAGGCTACCCCTTACAAATAGAATTTGAGCATCAGTGAGG  
 TAAACTAAGGCCCTTGAATCTCTGAATTTGAGATACAACATGTTCTCTGGGATCACT  
 GATGACTTTTTATACTTTGTAAGACAATTGTTGGAGAGCCCTCACACAGCCCTGGCCT  
 CTGCTCAACTAGCAGATACAGGGATGAGGCAGACCTGACTCTCTAAGGAGGCTGAGAGC  
 CCAAAGTCTGTCCAAACATGCACTTCTTGTAAAGGTATGGTACAAGCAATGCCTGC  
 CCATTGGAGAGAAAAAATTAAGTAGATAAGGAAATAAGAACCCTCATTAATTCTCACC  
 TTAGGAATAATCTCCTGTTAATATGGTGTACATTTCTCCTGATTATTTTACACATACA  
 TGTAATAATATGCTTTCTTTTTAAATAGGGTGTACTATGCTGTTATGAGTGGCTTTAA  
 TGAATAAACATTTGTAGCATCTCTTTAATGGGTAAACAGCATCCGAAAAAAAAAAAAAA  
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_001768

**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.

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>NM_001768.5, NP_001759.3</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>RefSeq Size:</b>           | 2325 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq ORF:</b>            | 708 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 925                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID:</b>            | <u>P01732</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Cytogenetics:</b>          | 2p11.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Domains:</b>               | ig, IGv, IG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Gene Summary:</b>          | <p>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]</p> <p>Transcript Variant: This variant (1) encodes the longer, membrane associated isoform (1). Both variants 1 and 3 encode the same isoform (1). 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.</p> |