

## Product datasheet for **RG227316**

### CD8A (NM\_001145873) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CD8A (NM\_001145873) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CD8A  
**Synonyms:** CD8; Leu2; p32  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG227316 representing NM\_001145873  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTTACCAGTGACCGCCTTGCTCCTGCCGCTGGCCTTGCTGCTCCACGCCGCCAGGCCGAGCCAGT  
TCCGGGTGTCGCCGCTGGATCGGACCTGGAACCTGGGCGAGACAGTGGAGCTGAAGTGCCAGGTGCTGCT  
GTCCAACCGACGTCGGGCTGCTCGTGGCTCTTCCAGCCGCGCGGCCGCCAGTCCCACCTTCCTC  
CTATACCTCTCCAAAACAAGCCAAGGGCGGCCGAGGGGCTGGACACCCAGCGGTTCTCGGGCAAGAGGT  
TGGGGACACCTTCGTCCTCACCTGAGCGACTCCGCCGAGAGAACGAGGGCTGCTATTCTGCTCGGC  
CCTGAGCAACTCCATCATGTACTTCAGCCACTTCGTGCCGGTCTTCTGCCAGCGAAGCCCACCAGCAGC  
CCAGCGCCGCGACCACCAACACCGGCCGCCACCATCGCGTCGCAGCCCTGTCCCTGCGCCAGAGGCGT  
GCCGCGCAGCGCGGGGGCGCAGTGCACACGAGGGGGCTGGACTTCGCCTGTGATATCTACATCTGGGC  
GCCCTTGGCCGGGACTTGTGGGGTCTTCTCCTGTCACTGGTTATCACCCTTTACTGCAACCACAGGAAC  
CGAAGACGTGTTTGAAATGTCCCCGCCCTGTGGTCAAATCGGGAGACAAGCCCAGCCTTTCGGCGAGAT  
ACGTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG227316 representing NM\_001145873  
Red=Cloning site Green=Tags(s)

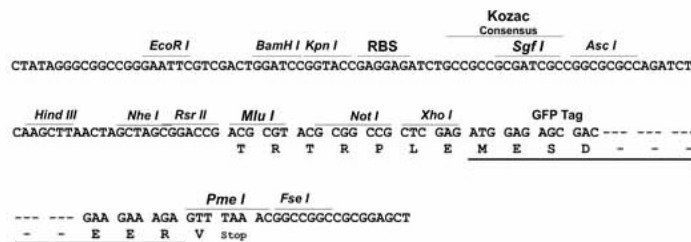
MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQVLLSNPTSGCSWLFPARGAAASPTFL  
 LYLSQLPKAAEGLDTRFSGKRLGDTFVLTLSDFRRENEGCYFCSALSNSIMYFSHFVPVFLPAKPTTT  
 PAPRPPTPAPTIASQPLSLRPEACRPAAGGAVHTRGLDFACDIYIWAPLAGTCGVLLLSLVITLYCNHRN  
 RRRVCKCPRPVVKSGDKPSSLARYV

TRTRPLE - GFP Tag - V

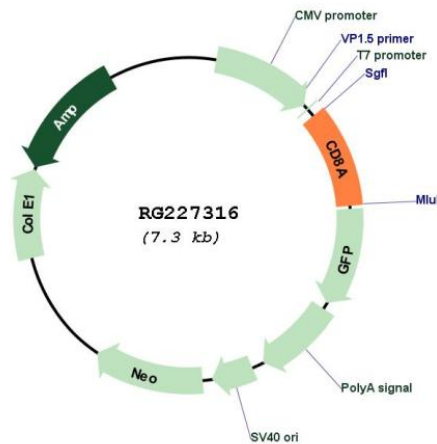
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** NM\_001145873

**ORF Size:** 705 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_001145873.1</a> , <a href="#">NP_001139345.1</a>
<b>RefSeq Size:</b>	3177 bp
<b>RefSeq ORF:</b>	708 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
<b>Gene Summary:</b>	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]