

## Product datasheet for **RG220206**

### CD8B (NM\_172102) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CD8B (NM\_172102) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CD8B  
**Synonyms:** CD8B1; LEU2; LY3; LYT3; P37  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG220206 representing NM\_172102  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCGGCCGGCTGTGGCTCCTTTGGCCGCGCAGCTGACAGTTCTCCATGGCAACTCAGTCTCCAGC  
 AGACCCCTGCATACATAAAGGTGCAAACCAACAAGATGGTGATGCTGCTCCTGCGAGGCTAAAATCTCCCT  
 CAGTAACATGCGCATCTACTGGCTGAGACAGCGCCAGGCACCGAGCAGTGACAGTCACCACGAGTTCCTG  
 GCCCTCTGGGATCCGCAAAGGGACTATCCACGGTGAAGAGGTGGAACAGGAGAAGATAGCTGTGTTTC  
 GGGATGCAAGCCGGTTCATTCTCAATCTACAAGCGTGAAGCCGGAAGACAGTGGCATCTACTTCTGCAT  
 GATCGTCGGGAGCCCGAGCTGACCTTCGGAAGGGAACCTCAGCTGAGTGTGGTTGATTTCTTCCACC  
 ACTGCCAGCCCAAGAAGTCCACCCTCAAGAAGAGAGTGTGCCGGTTACCCAGGCCAGAGACCCAGA  
 AGGGCCGGCGGAGGAGAGCCCGCTTCGTTTCATGAAACAGCCTCAAGGGGAAGGTATATCAGGAACCTT  
 TGTCCCCAATGCCTGCATGGATACTACAGCAATACTACAACCTCACAGAAGCTGCTTAACCCATGGATC  
 CTGAAAACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG220206 representing NM\_172102  
Red=Cloning site Green=Tags(s)

MRPRLWLLAAQLTVLHGNSVLQQTTPAYIKVQTNKMVMLSCEAKISLSNMRIYWLQRQAPSSDSHHEFL  
 ALWDSAKGTIHGEEVEQEKIAVFRDASRFILNLT SVKPEDSGIYFCMIVGSPELTFGKGTQLSVVDFLPT  
 TAQPTKKSTLKKRVCLRPETQKGRRRRARLRFMKQPQEGISGTFVPQCLHGYYSNTTTSQKLLNPWI  
 LKT

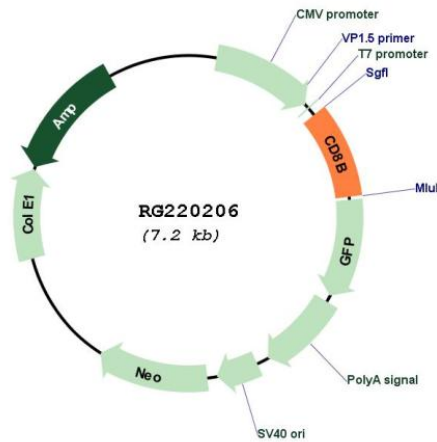
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_172102

**ORF Size:** 639 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_172102.4</a></p>
<b>RefSeq Size:</b>	<p>981 bp</p>
<b>RefSeq ORF:</b>	<p>642 bp</p>
<b>Locus ID:</b>	<p>926</p>
<b>UniProt ID:</b>	<p><a href="#">P10966</a></p>
<b>Cytogenetics:</b>	<p>2p11.2</p>
<b>Protein Families:</b>	<p>Druggable Genome, Secreted Protein, Transmembrane</p>
<b>Protein Pathways:</b>	<p>Antigen processing and presentation, Cell adhesion molecules (CAMs), Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway</p>

**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, acting as a coreceptor, and the T-cell receptor on the T lymphocyte recognize antigens displayed by an antigen presenting cell (APC) in the context of class I MHC molecules. The functional coreceptor is either a homodimer composed of two alpha chains, or 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 beta chain isoforms. Multiple alternatively spliced transcript variants encoding distinct membrane associated or secreted isoforms have been described. A pseudogene, also located on chromosome 2, has been identified. [provided by RefSeq, May 2010]