

## Product datasheet for **RG232172**

### **B7-2 (CD86) (NM\_001206924) Human Tagged ORF Clone**

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | B7-2 (CD86) (NM_001206924) Human Tagged ORF Clone                              |
| Tag:                      | TurboGFP   |
| Symbol:                   | CD86   |
| Synonyms:                 | B7-2; B7.2; B70; CD28LG2; LAB72  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| ORF Nucleotide Sequence:  | >RG232172 representing NM_001206924<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATCCCCAGTGCCTATGGGACTGAGTAACATTCTCTTTGTGATGGCCTTCCTGCTCTCTGCTAACT  
TCAGTCAACCTGAAATAGTACCAATTTCTAATATAACAGAAAATGTGTACATAAATTTGACCTGCTCATC  
TATACACGGTTACCCAGAACCTAAGAAGATGAGTGTTTTGCTAAGAACCAAGAATCAACTATCGAGTAT  
GATGGTATTATGCAGAAATCTCAAGATAATGTCACAGAACTGTACGACGTTCCATCAGCTTGCTGTTT  
CATTCCCTGATGTACGAGCAATATGACCATCTTCTGTATTCTGGAACTGACAAGACGGGCTTTTATC  
TTCACCTTTCTATAGAGCTTGAGGACCCTCAGCCTCCCCAGACCACATTCTTGATTACAGCTGTA  
CTTCCAACAGTTATTATATGTGTGATGGTTTTCTGTCTAATTCTATGAAATGGAAGAAGAAGAAGCGGC  
CTCGCAACTCTTATAAATGTGGAACCAACAATGGAGAGGGAAGAGAGTGAACAGACCAAGAAAAGAGA  
AAAAATCCATACCTGAAAGATCTGATGAAGCCAGCGTGTTTTTAAAAGTTTGAAGACATCTTCATGC  
GACAAAAGTGATACATGTTTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG232172 representing NM\_001206924  
 Red=Cloning site Green=Tags(s)

MDPQCTMGLSNILFVMAFLLSANFSQPEIVPISNITENVYINLTCSSIHGYPEPKKMSVLLRTRKNTSTIEY  
 DGIMQKSQDNVTELYDVSISLSVSFPDVTSMNTIFCILETDKTRLLSSPFSIELEDPPQPPDHIPWITAV  
 LPTVVICVMVFLILWKWKKKRPRNSYKCGTNTMERESEQTKKREKIHIPERSDEAQRVFKSSKTSSC  
 DKSDTCF

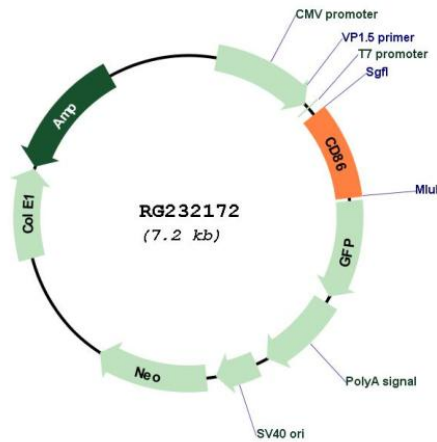
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001206924

**ORF Size:** 651 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_001206924.1</a> , <a href="#">NP_001193853.1</a>   |
| <b>RefSeq Size:</b>           | 2399 bp   |
| <b>RefSeq ORF:</b>            | 654 bp  |
| <b>Locus ID:</b>              | 942   |
| <b>UniProt ID:</b>            | <a href="#">P42081</a>  |
| <b>Cytogenetics:</b>          | 3q13.33   |
| <b>Protein Families:</b>      | Druggable Genome, Transcription Factors, Transmembrane  |
| <b>Protein Pathways:</b>      | Allograft rejection, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Graft-versus-host disease, Systemic lupus erythematosus, Toll-like receptor signaling pathway, Type I diabetes mellitus, Viral myocarditis   |
| <b>Gene Summary:</b>          | This gene encodes a type I membrane protein that is a member of the immunoglobulin superfamily. This protein is expressed by antigen-presenting cells, and it is the ligand for two proteins at the cell surface of T cells, CD28 antigen and cytotoxic T-lymphocyte-associated protein 4. Binding of this protein with CD28 antigen is a costimulatory signal for activation of the T-cell. Binding of this protein with cytotoxic T-lymphocyte-associated protein 4 negatively regulates T-cell activation and diminishes the immune response. Alternative splicing results in several transcript variants encoding different isoforms.[provided by RefSeq, May 2011] |