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## Product datasheet for RG206513

## B7-2 (CD86) (NM_006889) Human Tagged ORF Clone

## Product data:

Product Type:
Product Name:

## Tag:

Symbol:
Synonyms:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

ORF Nucleotide
Sequence:

Expression Plasmids
B7-2 (CD86) (NM_006889) Human Tagged ORF Clone
TurboGFP
B7-2
B7-2; B7.2; B70; CD28LG2; LAB72
Neomycin
pCMV6-AC-GFP (PS100010)
Ampicillin ( $100 \mathrm{ug} / \mathrm{mL}$ )
>RG206513 representing NM_006889
Red=Cloning site Blue=ORF Green=Tags(s)

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TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC

ATGGATCCCCAGTGCACTATGGGACTGAGTAACATTCTCTTTGTGATGGCCTTCCTGCTCTCTGGTGCTG CTCCTCTGAAGATTCAAGCTTATTTCAATGAGACTGCAGACCTGCCATGCCAATTTGCAAACTCTCAAAA CCAAAGCCTGAGTGAGCTAGTAGTATTTTGGCAGGACCAGGAAAACTTGGTTCTGAATGAGGTATACTTA GGCAAAGAGAAATTTGACAGTGTTCATTCCAAGTATATGGGCCGCACAAGTTTTGATTCGGACAGTTGGA CCCTGAGACTTCACAATCTTCAGATCAAGGACAAGGGCTTGTATCAATGTATCATCCATCACAAAAAGCC CACAGGAATGATTCGCATCCACCAGATGAATTCTGAACTGTCAGTGCTTGCTAACTTCAGTCAACCTGAA ATAGTACCAATTTCTAATATAACAGAAAATGTGTACATAAATTTGACCTGCTCATCTATACACGGTTACC CAGAACCTAAGAAGATGAGTGTTTTGCTAAGAACCAAGAATTCAACTATCGAGTATGATGGTATTATGCA GAAATCTCAAGATAATGTCACAGAACTGTACGACGTTTCCATCAGCTTGTCTGTTTCATTCCCTGATGTT ACGAGCAATATGACCATCTTCTGTATTCTGGAAACTGACAAGACGCGGCTTTTATCTTCACCTTTCTCTA TAGAGCTTGAGGACCCTCAGCCTCCCCCAGACCACATTCCTTGGATTACAGCTGTACTTCCAACAGTTAT TATATGTGTGATGGTTTTCTGTCTAATTCTATGGAAATGGAAGAAGAAGAAGCGGCCTCGCAACTCTTAT AAATGTGGAACCAACACAATGGAGAGGGAAGAGAGTGAACAGACCAAGAAAAGAGAAAAAATCCATATAC CTGAAAGATCTGATGAAACCCAGCGTGTTTTTAAAAGTTCGAAGACATCTTCATGCGACAAAAGTGATAC ATGTTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

| Protein Sequence: | >RG206513 representing NM_006889 Red=Cloning site Green=Tags(s) |
| :---: | :---: |
|  | MDPQCTMGLSNILFVMAFLLSGAAPLKIQAYFNETADLPCQFANSQNQSLSELVVFWQDQENLVLNEVYL GKEKFDSVHSKYMGRTSFDSDSWTLRLHNLQIKDKGLYQCIIHHKKPTGMIRIHQMNSELSVLANFSQPE IVPISNITENVYINLTCSSIHGYPEPKKMSVLLRTKNSTIEYDGIMQKSQDNVTELYDVSISLSVSFPDV TSNMTIFCILETDKTRLLSSPFSIELEDPQPPPDHIPWITAVLPTVIICVMVFCLILWKWKKKKRPRNSY KCGTNTMEREESEQTKKREKIHIPERSDETQRVFKSSKTSSCDKSDTCF |
|  | TRTRPLE - GFP Tag - V |
| Restriction Sites: | Sgfi-Mlul |
| Cloning Scheme: | Cloning sites used for ORF Shuttling: |
|  |  |
|  | CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACGGAGGAGATCTGCcGccGcGATCGCcGGCGCGCCAGATCT |
|  |  |
|  | ....- gAA GAA AGA $\frac{\text { Pmel } \text { Gst TAA ACGGCGGGCGGGGAGCT }}{}$ <br> $-\quad \mathrm{E}^{\mathrm{E}} \mathrm{R} \mathrm{V}^{\text {stop }}$ |

## ACCN:

ORF Size:
OTI Disclaimer:

## OTI Annotation:

Components:
NM_006889
987 bp
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. More info

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

| Reconstitution Method: | 1. Centrifuge at $5,000 \mathrm{xg}$ for 5 min . <br> 2. Carefully open the tube and add 100 ul of sterile water to dissolve the DNA. <br> 3. Close the tube and incubate for 10 minutes at room temperature. <br> 4. Briefly vortex the tube and then do a quick spin (less than 5000 xg ) to concentrate the liquid at the bottom. <br> 5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$. |
| :---: | :---: |
| RefSeq: | NM 006889.2 NP 008820.1 |
| RefSeq Size: | 2794 bp |
| RefSeq ORF: | 972 bp |
| Locus ID: | 942 |
| UniProt ID: | P42081 |
| Cytogenetics: | 3q13.33 |
| Domains: | IGv, IG |
| Protein Families: | Druggable Genome, Transcription Factors, Transmembrane |
| Protein Pathways: | 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 |
| Gene Summary: | 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] |

## Product images:



Circular map for RG206513

