

Product datasheet for **RG217341**

B7-2 (CD86) (NM_175862) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: B7-2 (CD86) (NM_175862) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: B7-2
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: >RG217341 representing NM_175862
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGATCCCCAGTGCCTATGGGACTGAGTAACATTCTCTTTGTGATGGCCTTCTGCTCTCTGGTGCTG
 CTCCTCTGAAGATTCAAGCTTATTTCAATGAGACTGCAGACCTGCCATGCCAATTTGCAAACCTCAAAA
 CCAAAGCCTGAGTGAGCTAGTAGTATTTGGCAGGACCAGGAAAACCTGGTTCTGAATGAGGTATACTTA
 GGCAAAGAGAAAATTTGACAGTGTTCAATCAAGTATATGGGCCGCACAAGTTTTGATTCCGACAGTTGGA
 CCCTGAGACTTACAATCTTCAGATCAAGGACAAGGGCTTGATCAATGTATCATCCATCACAAAAGCC
 CACAGGAATGATTCGCATCCACCAGATGAATTCGAACTGTCAGTGCTTGCTAATTCAGTCAACCTGAA
 ATAGTACCAATTTCTAATATAACAGAAAATGTGTACATAAATTTGACCTGCTCATCTATACACGGTTACC
 CAGAACCTAAGAAGATGAGTGTTTTGCTAAGAACCAAGAATTCACACTATCGAGTATGATGGTATTATGCA
 GAAATCTCAAGATAATGTCACAGAAGTGTACGACGTTTCCATCAGCTTGCTGTTTCATTCCCTGATGTT
 ACGAGCAATATGACCATCTTCTGTATTCTGAAACTGACAAGACGCGGCTTTTATCTTACCTTTCTCTA
 TAGAGCTTGAGGACCCTCAGCCTCCCCAGACCACATTCCTTGGATTACAGCTGTACTTCCAACAGTTAT
 TATATGTGTGATGGTTTTCTGTCTAATTTCTATGGAATGGAAGAAGAAGAAGCGGCTCGCAACTCTTAT
 AAATGTGGAACCAACACAATGGAGAGGGAAGAGAGTGAACAGACCAAGAAAAGAGAAAAATCCATATAC
 CTGAAAGATCTGATGAAGCCAGCGTGTTTTAAAAGTTCGAAGACATCTTCATGCGACAAAAGTGATAC
 ATGTTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG217341 representing NM_175862
Red=Cloning site Green=Tags(s)

MDPQCTMGLSNILFVMAFLLSGAAPLKIQAYFNETADLPCQFANSQNSLSELVFWQDQENLVLNEVYL
 GKEKFDVSHSKYMGRTSFDSDSWTLRLHNLQIKDKGLYQCIHHKKPTGMIRIHQMNSELVLANFSQPE
 IVPISNITENVYINLTCSSIHGYPEPKMSVLLRRTKNSTIEYDGMQKSQDNVTELYDVSISLSVSFPDV
 TSNMTIFCILETDKTRLLSSPFSIELEDPPQPPDHIPWITAVLPTVIICVMVFCLILWKWKKKRPRNSY
 KCGTNTMERESEQTKKREKIHIPERSDEAQRVFKSSKTSSCDKSDTCF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_175862

ORF Size: 987 bp

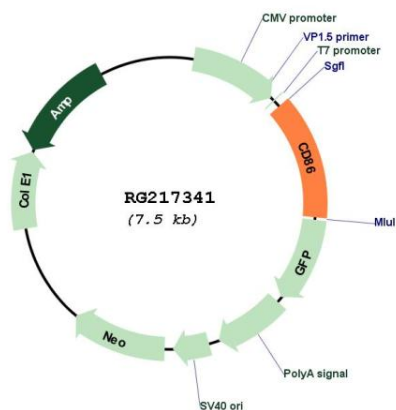
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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

Components:	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:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.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.
RefSeq:	<u>NM_175862.4, NP_787058.4</u>
RefSeq Size:	2781 bp
RefSeq ORF:	990 bp
Locus ID:	942
UniProt ID:	<u>P42081</u>
Cytogenetics:	3q13.33
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 RG217341