

## Product datasheet for **RC232358**

### **B7-2 (CD86) (NM\_176892) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** B7-2 (CD86) (NM\_176892) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** CD86  
**Synonyms:** B7-2; B7.2; B70; CD28LG2; LAB72  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC232358 representing NM\_176892  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGGACTGAGTAACATTCTCTTTGTGATGGCCTTCTGCTCTCTGGTGTGCTCCTCTGAAGATTCAAG  
CTTATTTCAATGAGACTGCAGACCTGCCATGCCAATTTGCAAACCTCTCAAACCAAAGCCTGAGTGAGCT  
AGTAGTATTTTGGCAGGACCAGGAAAATTGGTTCTGAATGAGGTATACTTAGGCAAAGAGAAATTTGAC  
AGTGTTCAATCCAAGTATATGGGCCGCACAAGTTTGGATTTCGGACAGTTGGACCCCTGAGACTTCACAATC  
TTCAGATCAAGGACAAGGGCTTGTATCAATGTATCATCCATCACAAAAAGCCACAGGAATGATTTCGCAT  
CCACCAGATGAATTCTGAACTGTCAGTGTCTGCTAACTTCAGTCAACCTGAAATAGTACCAATTTCTAAT  
ATAACAGAAAAATGTGTACATAAAATTTGACCTGCTCATCTATACACGGTTACCCAGAACCTAAGAAGATGA  
GTGTTTTGCTAAGAACCAAGAATCAACTATCGAGTATGATGGTATTATGCAGAAATCTCAAGATAATGT  
CACAGAACTGTACGACGTTTCCATCAGCTTGTCTGTTTCATTCCCTGATGTTACGAGCAATATGACCATC  
TTCTGTATTCTGAAAACGACAAGACCGCGCTTTTATCTTCACCTTTCTCTATAGGAACCAACACAATGG  
AGAGGGAAGAGAGTGAACAGACCAAGAAAAGAGAAAAATCCATATACCTGAAAGATCTGATGAAGCCCA  
GCGTGTTTTTAAAGTTCAAGACATCTTCATGCGACAAAAGTGATACATGTTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC232358 representing NM\_176892  
Red=Cloning site Green=Tags(s)

MGLSNILFVMAFLLSGAAPLKIQAYFNETADLPCQFANSQNQSLSELVVFWDQENLVLNEVYLGKEKFD  
 SVHSKYMGRTSFSDSWTLRLHNLQIKDKGLYQCIHHKKPTGMIRIHQMNSELSVLANFSQPEIVPISN  
 ITENVYINLTCSSIHGYPEPKMSVLLRRTKNSTIEYDGMQKSQDNVTELYDVSISLSVSFPDVTSMNTI  
 FCILETDKTRLLSSPFSIGTNTMERESEQTKKREKIHIPERSDEAQRVFKSSKTSCKSDTCF

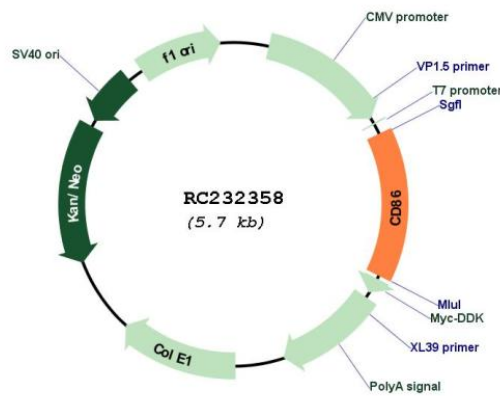
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_176892  
**ORF Size:** 825 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_176892.1</a> , <a href="#">NP_795711.1</a>
<b>RefSeq Size:</b>	2646 bp
<b>RefSeq ORF:</b>	828 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>MW:</b>	31.8 kDa
<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]