

## Product datasheet for RC211318

### CD28 (NM\_006139) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD28 (NM_006139) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD28
Synonyms:	Tp44
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211318 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTCAGGCTGCTCTTGGCTCTCAACTTATCCCTTCAATTCAAGTAACAGGAAACAAGATTTGGTGA  
AGCAGTCGCCATGCTTGTAGCGTACGACAATGCGGTCAACCTTAGCTGCAAGTATTCTACAATCTCTT  
CTCAAGGGAGTCCGGGCATCCCTTCAAAAGGACTGGATAGTGTGTTGGAAGTCTGTGTTGTATATGGG  
AATTACTCCAGCAGCTCAGGTTTACTCAAAAACGGGGTTCAACTGTGATGGGAAATTGGGCAATGAAT  
CAGTGACATTCTACCTCCAGAATTTGTATGTTAACAAACAGATATTTACTTCTGCAAAAATTGAAGTTAT  
GTATCCTCCTCCTTACCTAGACAATGAGAAGAGCAATGGAACCATTATCCATGTGAAAGGGAAACACCTT  
TGTCCAAGTCCCCTATTTCCCGGACCTTCTAAGCCCTTTTGGGTGCTGGTGGTGGTGGTGGAGTCTCGG  
CTTGCTATAGCTTGTAGTAACAGTGGCCTTTATTATTTCTGGGTGAGGAGTAAGAGGAGCAGGCTCCT  
GCACAGTGACTACATGAACATGACTCCCCGCCGCCCGGGCCACCCGCAAGCATTACCAGCCCTATGCC  
CCACCACGCGACTTCGCAGCCTATCGCTCC

**ACGCGT**ACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC211318 protein sequence  
Red=Cloning site Green=Tags(s)

MLRLLLALNLFPSIQVTGNKILVKQSPMLVAYDNAVNLSCKYSYNLFSREFRASLHKGLDSAVEVCVYVG  
 NYSOQLQVYSKTGFNCDGKLGNESVTFYLQNLVYNQTDIYFCKIEVMYPPPYLDNEKSNGTIIHVKGKHL  
 CPSPLFPGPSKPFVWL VVVGVLACYSLLVTVAFIIFWVRSKRSRLLHSDYMNMPRRPGPTRKHYQPYA  
 PPRDFAAYRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6010\\_f04.zip](https://cdn.origene.com/chromatograms/mk6010_f04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006139

**ORF Size:** 660 bp

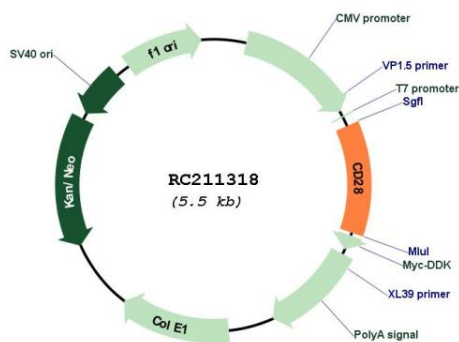
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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](#)

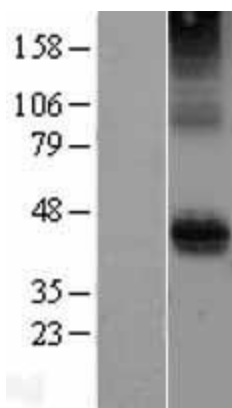
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_006139.4</a>
<b>RefSeq Size:</b>	4900 bp
<b>RefSeq ORF:</b>	663 bp
<b>Locus ID:</b>	940
<b>UniProt ID:</b>	<a href="#">P10747</a>
<b>Cytogenetics:</b>	2q33.2
<b>Domains:</b>	IGv
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Allograft rejection, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Graft-versus-host disease, Systemic lupus erythematosus, T cell receptor signaling pathway, Type I diabetes mellitus, Viral myocarditis
<b>MW:</b>	25.1 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is essential for T-cell proliferation and survival, cytokine production, and T-helper type-2 development. Several alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Jul 2011]

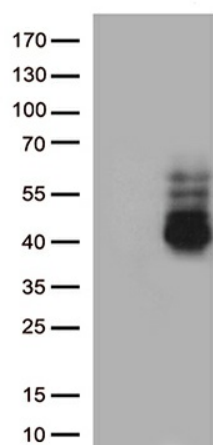
Product images:



Circular map for RC211318



Western blot validation of overexpression lysate (Cat# [LY401849]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211318 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CD28 (Cat# RC211318, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CD28 antibody (Cat# [TA813687])(1:500)