

## Product datasheet for **RC231721**

### CD28 (NM\_001243077) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CD28 (NM\_001243077) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** CD28  
**Synonyms:** Tp44  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC231721 representing NM\_001243077  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

**ATGCTCAGGCTGCTCTTGCTCTCAACTTATCCCTTCAATTCAAGTAACAGGAAACAAGATTTTGGTGA**  
**AGCAGTCGCCCATGCTTGTAGCGTACGACAATGCGGTCAACCTTAGCTGGAACACCTTTGTCCAAGTCC**  
**CCTATTTCCCGACCTTCTAAGCCCTTTGGGTGCTGGTGGTGGTGGTGGAGTCCTGGCTTGCTATAGC**  
**TTGCTAGTAACAGTGGCCTTTATTTCTGGGTGAGGAGTAAGAGGAGCAGGCTCCTGCACAGTGACT**  
**ACATGAACATGACTCCCCGCCGCCCGGGCCACCCGCAAGCATTACCAGCCCTATGCCACCACGCGCA**  
**CTTCGCAGCCTATCGCTCC**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC231721 representing NM\_001243077  
**Red=Cloning site Green=Tags(s)**

MLRLLLALNLFPSIQVTGNKILVKQSPMLVAYDNAVNLSWKHLCPSPFPGPSKPFVWLVVVGVLACYS  
LLVTVAFIIFWVRSKRSRLLHSDYMNMPRRPGPTRKHYQPYAPPRDFAAYRS

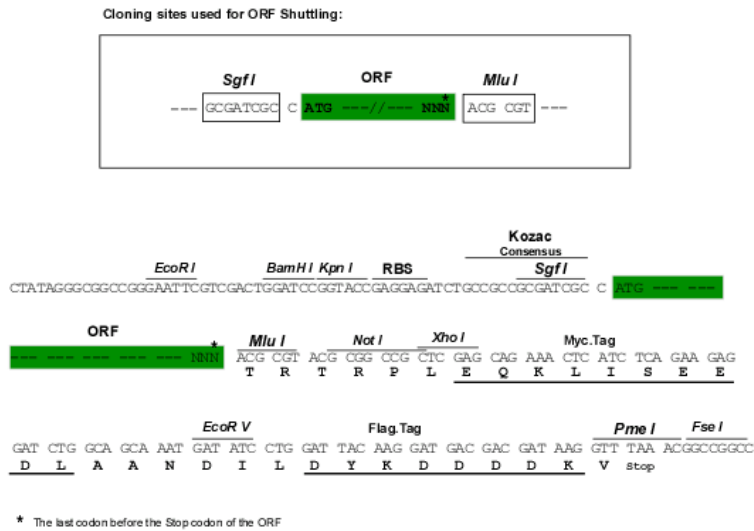
**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

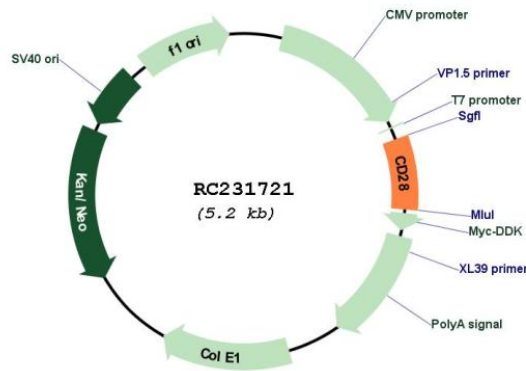


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001243077  
 ORF Size: 369 bp

|                               |   |
|-------------------------------|---|
| <b>OTI Disclaimer:</b>        | 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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <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_001243077.2</a>  |
| <b>RefSeq Size:</b>           | 4609 bp   |
| <b>RefSeq ORF:</b>            | 372 bp  |
| <b>Locus ID:</b>              | 940   |
| <b>UniProt ID:</b>            | <a href="#">P10747</a>  |
| <b>Cytogenetics:</b>          | 2q33.2  |
| <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>                    | 14.5 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]   |