

## Product datasheet for RC201977

### CD40 (NM\_001250) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD40 (NM_001250) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD40
Synonyms:	Bp50; CDW40; p50; TNFRSF5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201977 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTTCGTCTGCCTCTGCAGTGCCTCTCTGGGGCTGCTTGCTGACCGCTGTCCATCCAGAACCACCCA  
CTGCATGCAGAGAAAAACAGTACCTAATAAACAGTCACTGCTGTTCTTTGTGCCAGCCAGGACAGAACT  
GGTGAAGTACTGCACAGAGTTCCTGAAACGGAATGCCTTCCTTGCGGTGAAAGCGAATTCCTAGACACC  
TGGAACAGAGAGACACTGCCACCAGCACAAATACTGCGACCCCAACCTAGGGCTTCGGGTCCAGCAGA  
AGGGCACCTCAGAAACAGACACCATCTGCACCTGTGAAGAAGGCTGGCACTGTACGAGTGGCCCTGTGA  
GAGCTGTGTCCTGCACCGCTCATGCTCGCCCGGCTTTGGGGTCAAGCAGATTGCTACAGGGGTTTCTGAT  
ACCATCTGCGAGCCCTGCCAGTCGGCTTCTTCTCCAATGTGTCATCTGCTTTCGAAAAATGTCACCCCTT  
GGACAAGCTGTGAGACCAAGACCTGGTTGTGCAACAGGCAGGCACAAACAAGACTGATGTTGTCTGTGG  
TCCCCAGGATCGGCTGAGAGCCCTGGTGGTGTATCCCCATCATCTTCGGGATCCTGTTTGCCATCCTCTTG  
GTGCTGGTCTTTATCAAAAAGGTGGCCAAGAAGCCAACAATAAGGCCCCCAAGCAGGAACCC  
AGGAGATCAATTTCCCGACGATCTTCTGGCTCCAACACTGTGCTCCAGTGCAGGAGACTTTACATGG  
ATGCCAACCGGTACCCAGGAGGATGGCAAAGAGAGTCCGATCTCAGTGCAGGAGAGACAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201977 protein sequence  
 Red=Cloning site Green=Tags(s)

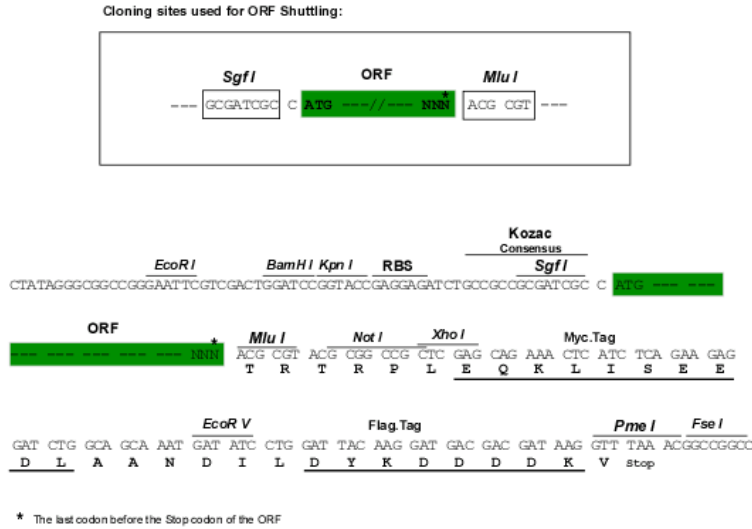
MVRLPLQCVLWGCLLTAVHPEPPTACREKQYLINSQCCSLCQPGQKLVSDCTEFTETECLPCGESEFLDT  
 WNRETHCHQHXYCDPNLGLRVQQKGTSETDICTCEEGWHCTSEACESVLRHSCSPGFGVKQIATGVSD  
 TICEPCPVGFFSNVSSAFEKCHPWTSCETKDLVVQAGTNKTDVVCQPDRLRALVVIPIIFGILFAILL  
 VLVFIIKKVAKKPTNKAPHPKQEPQEINFPDDLPGSNTAAPVQETLHGCQPVTQEDGKESRISVQERQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

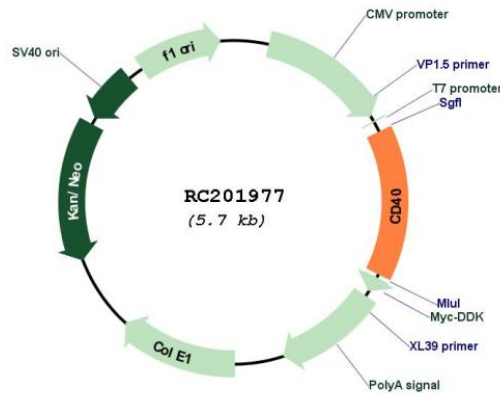
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6131\\_b05.zip](https://cdn.origene.com/chromatograms/mk6131_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



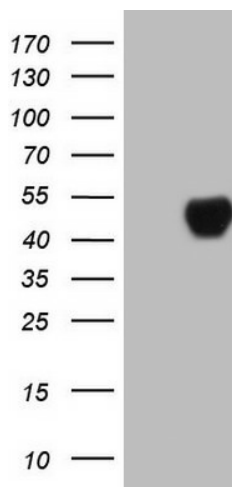
**ACCN:** NM\_001250

**ORF Size:** 831 bp

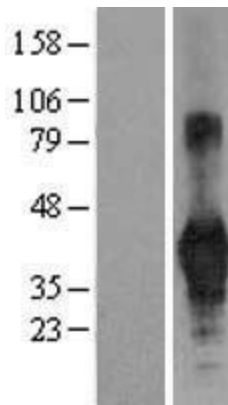
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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_001250.6</a>
<b>RefSeq Size:</b>	1616 bp
<b>RefSeq ORF:</b>	834 bp
<b>Locus ID:</b>	958
<b>UniProt ID:</b>	<a href="#">P25942</a>
<b>Cytogenetics:</b>	20q13.12
<b>Domains:</b>	TNFR
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	Allograft rejection, Asthma, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Cytokine-cytokine receptor interaction, Primary immunodeficiency, Systemic lupus erythematosus, Toll-like receptor signaling pathway, Viral myocarditis
<b>MW:</b>	30.6 kDa

**Gene Summary:**

This gene is a member of the TNF-receptor superfamily. The encoded protein is a receptor on antigen-presenting cells of the immune system and is essential for mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. AT-hook transcription factor AKNA is reported to coordinately regulate the expression of this receptor and its ligand, which may be important for homotypic cell interactions. Adaptor protein TNFR2 interacts with this receptor and serves as a mediator of the signal transduction. The interaction of this receptor and its ligand is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis. Mutations affecting this gene are the cause of autosomal recessive hyper-IgM immunodeficiency type 3 (HIGM3). Multiple alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Nov 2014]

**Product images:**

HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CD40 (Cat# RC201977, 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-CD40 (Cat# [TA807569]). Positive lysates [LY400500] (100ug) and [LC400500] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400500]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201977 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).