

Product datasheet for **RG219408**

CD40 (NM_152854) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CD40 (NM_152854) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: CD40
Synonyms: Bp50; CDW40; p50; TNFRSF5
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG219408 representing NM_152854
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAACTACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGATCGCC

ATGGTTCTGCTGCCTCTGCAGTGCCTCTGGGGCTGCTTGTGACCGCTGTCCATCCAGAACCACCCA
CTGCATGCAGAGAAAAACAGTACCTAATAAACAGTCAGTGCTGTTCTTTGTGCCAGCCAGGACAGAACT
GGTGAGTGACTGCACAGAGTTCACTGAAACGGAATGCCTTCCTTGCGGTGAAAGCGAATTCCTAGACACC
TGAACAGAGAGACACTGCCACCAGCACAAATACTGCGACCCCAACCTAGGGCTTCGGGTCCAGCAGA
AGGGCACCTCAGAAACAGACACCATCTGCACCTGTGAAGAAGGCTGGCACTGTACGAGTGAGGCCTGTGA
GAGCTGTGCTCCTGCACCGCTCATGCTCGCCCGGCTTTGGGGTCAAGCAGATTGCTACAGGGGTTTCTGAT
ACCATCTGCGAGCCCTGCCAGTCGGCTTCTTCTCCAATGTGTCATCTGCTTTGAAAAATGTCACCCCTT
GGACAAGGTCCCCAGGATCGGCTGAGAGCCCTGGTGGTATCCCCATCATCTTCGGGATCCTGTTTGCCA
TCCTCTTGGTGCTGGTCTTTATCAAAAAGGTGGCCAAGAAGCCAACCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219408 representing NM_152854
Red=Cloning site Green=Tags(s)

MVRLPLQCVLWGCLLTAVHPEPPTACREKQYLINSQCCSLCQPGQKLVSDETEFTETECLPCGESEFLDT
 WNRETHCHQHKYCDPNLGLRVQQKGTSETDTICTCEEGWHCTSEACESVLHRSCSPGFGVKQIATGVSD
 TICEPCPVGFFSNVSSAFEKCHPWTRSPGSAESPGGDPHHLRDPVCHPLGAGLYQKGGQEANQ

TRTRPLE - GFP Tag - V

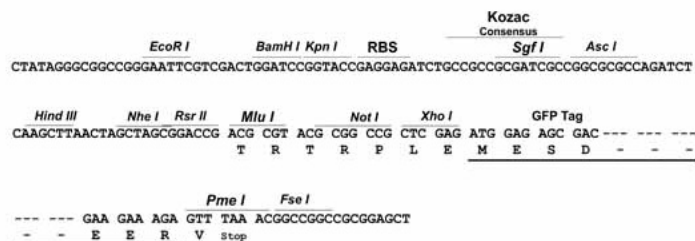
Restriction Sites: SgfI-MluI



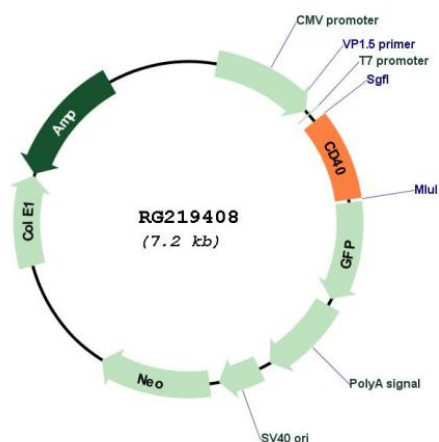
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Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_152854
ORF Size: 609 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	NM_152854.4
RefSeq Size:	1115 bp
RefSeq ORF:	612 bp
Locus ID:	958
UniProt ID:	P25942
Cytogenetics:	20q13.12
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	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

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]