

Product datasheet for **RG206453**

CD4 (NM_000616) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD4 (NM_000616) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CD4
Synonyms:	CD4mut; IMD79; OKT4D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG206453 representing NM_000616
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACCGGGGAGTCCCTTTTAGGCACTTGCTTCTGGTGTGCAACTGGCGCTCCTCCAGCAGCCACTC
 AGGGAAAGAAAGTGGTGTCTGGGCAAAAAAGGGGATACAGTGGAAGTACCTGTACAGCTTCCAGAAAGAA
 GAGCATACAATTCCACTGGAAAACTCCAACCAGATAAAGATTCTGGGAAATCAGGGCTCCTTCTTAACT
 AAAGGTCCATCCAAGCTGAATGATCGCGCTGACTCAAGAAGAAGCCTTTGGGACCAAGGAAACTTTCCCC
 TGATCATCAAGAATCTTAAGATAGAAGACTCAGATACTTACATCTGTGAAGTGGAGGACCAGAAGGAGGA
 GGTGCAATTGCTAGTGTTGCGATTGACTGCCAAGTCTGACACCCACCTGCTTCAGGGGCAGAGCCTGACC
 CTGACCTTGGAGAGCCCCCTGGTAGTAGCCCTCAGTGAATGTAGGAGTCCAAGGGTAAAAACATAC
 AGGGGGGGAAGACCCTCTCCGTGTCTCAGCTGGAGCTCCAGGATAGTGGCACCTGGACATGCACTGTCTT
 GCAGAACCAGAAGAAGGTGGAGTCAAAAATAGACATCGTGGTGTAGCTTCCAGAAGGCCTCCAGCATA
 GTCTATAAGAAAGAGGGGGAACAGGTGGAGTTCCTTCCCACTCGCCTTACAGTTGAAAAGCTGACGG
 GCAGTGGCGAGCTGTGGTGGCAGGCGGAGAGGGCTTCCCTCCTCAAGTCTTGGATCACCTTTGACCTGAA
 GAACAAGGAAGTGTCTGTAAAACGGGTTACCCAGGACCCTAAGCTCCAGATGGGCAAGAAGCTCCCGCTC
 CACCTCACCTGCCCCAGGCCTTGCCCTCAGTATGCTGGCTCTGGAAACCTCACCTGGCCCTTGAAGCGA
 AAACAGGAAAGTTGCATCAGGAAGTGAACCTGGTGGTGTGAGAGCCACTCAGCTCCAGAAAAATTTGAC
 CTGTGAGGTGTGGGACCCACCTCCCCTAAGCTGATGCTGAGCTTGAACCTGGAGAACAAGGAGGCAAAG
 GTCTCGAAGCGGGAGAAGCGGTGTGGGTGCTGAACCTGAGCGGGGATGTGGCAGTGTCTGCTGAGTG
 ACTCGGGACAGGTCTGCTGGAATCCAACATCAAGTTCTGCCACATGGTCCACCCCGGTGACGCCAAT
 GGCCCTGATTGTCTGGGGGCGCTCGCCGCTCCTGCTTTTCATTGGGCTAGGCATCTTCTCTGTGTC
 AGGTGCCGGCACCGAAGCGCCAAGCAGAGCGGATGTCTCAGATCAAGAGACTCCTCAGTGAAGAAGA
 CCTGCCAGTGCCTCACCGTTTCAGAAGACATGTAGCCCAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG206453 representing NM_000616
 Red=Cloning site Green=Tags(s)

MNRGVPFRHLLLVLQLALLPAATQGKVVVLGKKGDTVELTCTASQKKSIIQFHWKNSNQIKILGNQGSFLT
 KGPSKLNDRADSRRLWDQGNFPLIIKNLKIEDSDTYICEVEDQKEEVQLLVFGLTANSHTLLQGQSLT
 LTLESPPGSSPSVQCRSPRGKNIQGGKTLVSVQLELQDSGTWTCTVLQNKQKVEFKIDIVVLAQKASSI
 VYKKEGEQVEFSFPLAFTVEKLTGSGELWWQAERASSKSWITFDLKNKEVSVKRVTPQPKLQMGKLLPL
 HLTLPQALPQYAGSGLTLALEAKTGKLVHVEVNLVVMRATQLQKNTCEVWGPTSPKMLSLKLENKEAK
 VSKREKAVVVLNPEAGMWQCLLSDSGVLLLESNIKVLPTWSTPVQPMALIVLGGVAGLLLFILGLIFFCV
 RCRHRRRQAERMSQIKRLLSEKKTQCQPHRFQKTCSPI

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_000616

ORF Size: 1374 bp

OTI Disclaimer: 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.

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:

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_000616.2](#), [NP_000607.1](#)

RefSeq Size: 3084 bp

RefSeq ORF: 1377 bp

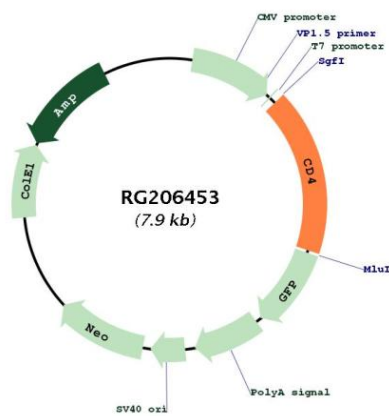
Locus ID: 920

UniProt ID: [P01730](#)

Cytogenetics: 12p13.31

Domains:	ig, IGv, IGc2, IG
Protein Families:	Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Transmembrane
Protein Pathways:	Antigen processing and presentation, Cell adhesion molecules (CAMs), Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway
Gene Summary:	This gene encodes the CD4 membrane glycoprotein of T lymphocytes. The CD4 antigen acts as a coreceptor with the T-cell receptor on the T lymphocyte to recognize antigens displayed by an antigen presenting cell in the context of class II MHC molecules. The CD4 antigen is also a primary receptor for entry of the human immunodeficiency virus through interactions with the HIV Env gp120 subunit. This gene is expressed not only in T lymphocytes, but also in B cells, macrophages, granulocytes, as well as in various regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been identified in this gene. [provided by RefSeq, May 2020]

Product images:



Circular map for RG206453