

Product datasheet for **RC231121**

CD4 (NM_001195014) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CD4 (NM_001195014) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CD4
Synonyms: CD4mut; IMD79; OKT4D
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC231121 representing NM_001195014
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGCCAACCCCACTCGTGCACCCTCATCTTCTATCTCCTCACCCAGGGTCTCTCCCTTCCCACCTCCAG
CTTTCCAGAAGGCCTCCAGCATAGTCTATAAGAAAGAGGGGGAACAGGTGGAGTTCTCTTCCCCTCGC
CTTTACAGTTGAAAAGCTGACGGGCAGTGGCGAGCTGTGGTGGCAGGCGGAGAGGGCTTCTCCTCCAAG
TCTTGGATCACCTTTGACCTGAAGAACAAGGAAGTGTCTGTAAAACGGGTACCCAGGACCCTAAGCTCC
AGATGGCAAGAAGCTCCCGCTCCACCTCACCTGCCCCAGGCCCTGCCTCAGTATGCTGGCTCTGGAAA
CCTCACCTGGCCCTTGAAGCGAAAACAGGAAAGTTGCATCAGGAAGTGAACCTGGTGGTATGAGAGCC
ACTCAGCTCCAGAAAAATTTGACCTGTGAGGTGTGGGGACCCACCTCCCCTAAGCTGATGCTGAGTTTGA
AACTGGAGAACAAGGAGGCAAAGGTCTCGAAGCGGGAGAAGGCGGTGTGGGTGCTGAACCCTGAGGCGGG
GATGTGGCAGTGTCTGCTGAGTGACTCGGGACAGGTCCTGCTGGAATCCAACATCAAGTTCTGCCACA
TGGTCCACCCCGGTGCAGCCAATGGCCCTGATTGTGCTGGGGGGCGTCCCGGCCCTCTGCTTTTCATTG
GGCTAGGCATCTTCTTGTGTGCTCAGGTGCCGGCACCGAAGGCGCCAAGCAGAGCGGATGTCTCAGATCAA
GAGACTCTCAGTGAGAAGAAGACCTGCCAGTGTCTCACCGTTTCAGAAGACATGTAGCCCCATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC231121 representing NM_001195014
 Red=Cloning site Green=Tags(s)

MPTPLVHPLPISSPRVSPFPPPAFQKASSIVYKKEGEQVEFSFPLAFTVEKLTGSGELWWQAERASSK
 SWITFDLKNKEVSVKRVTDPKLQMGKKLPLHLTLPQALPQYAGSGNLTALAEAKTGKLNHQLVVMRA
 TQLQKNLTCEVWGPTSPKLMMLSLKLENKEAKVSKREKAVWVNLNPEAGMWQCLLSDSGQVLLSNIKVLPT
 WSTPVQPMALIVLGGVAGLLLF IGLGIFFCVRCRHRRRQAERMSQIKRLLSEKKTQCPhRFQKTCSPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8049_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001195014

ORF Size: 837 bp

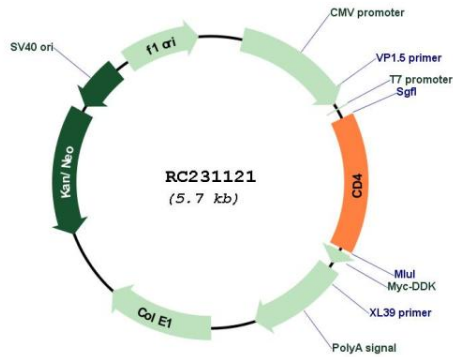
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

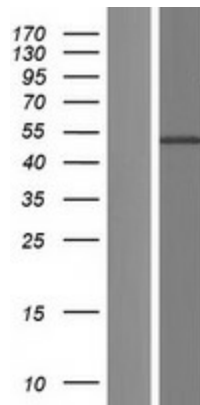
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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_001195014.3
RefSeq ORF:	840 bp
Locus ID:	920
Cytogenetics:	12p13.31
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
MW:	31.7 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC231121



Western blot validation of overexpression lysate (Cat# [LY434120]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231121 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).