

## Product datasheet for **RC210150**

### CTLA4 (NM\_005214) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CTLA4 (NM_005214) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CTLA4
Synonyms:	ALPS5; CD; CD152; CELIAC3; CTLA-4; GRD4; GSE; IDDM12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210150 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTGCCCTTGATTTTCAGCGGCACAAGGCTCAGCTGAACCTGGCTACCAGGACCTGGCCCTGCACTC  
TCCTGTTTTTCTTCTTTCATCCCTGTCTTCTGCAAAGCAATGCACGTGGCCAGCCTGCTGTGGTACT  
GGCCAGCAGCCGAGGCATCGCCAGCTTTGTGTGTGAGTATGCATCTCCAGGCAAAGCCACTGAGGTCCGG  
GTGACAGTGCTTCGGCAGGCTGACAGCCAGGTGACTGAAGTCTGTGCGGCAACCTACATGATGGGAATG  
AGTTGACCTTCTAGATGATTCCATCTGCACGGGCACCTCCAGTGAAATCAAGTGAACCTCACTATCCA  
AGGACTGAGGGCCATGGACACGGGACTCTACATCTGCAAGGTGGAGCTCATGTACCCACCGCCATACTAC  
CTGGGCATAGGCAACGGAACCCAGATTTATGTAATTGATCCAGAACCGTGCCAGATTCTGACTTCTCCTC  
TCTGGATCCTTGACAGTGTAGTTTCGGGTTGTTTTTTATAGCTTTCTCCTCACAGCTGTTTTCTTTGAG  
CAAAATGCTAAAGAAAAGAAGCCCTCTTACAACAGGGTCTATGTGAAAATGCCCAACAGAGCCAGAA  
TGTGAAAAGCAATTTTCAGCCTTATTTTATCCCATCAAT

**ACGCGT**ACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210150 protein sequence  
Red=Cloning site Green=Tags(s)

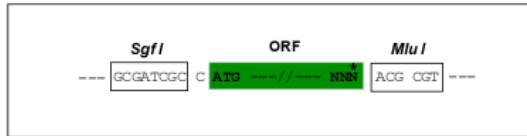
MACLGFQRHKAQLNLA TRTPCTLLFFLLFIPVFCKAMHVAQPAVVLASSRGIASFVCEYASPGKATEVR  
 VTVLRQADSQVTEVCAATYMMGNELTFLDSDICTGTSSGNQVNLTIQGLRAMDTGLYICKVELMYPPPPYY  
 LGIGNGTQIYVIDPEPCPDSDFLLWILAAVSSGLFFYSFLLTAVSLSKMLKKRSLPTTGVYVKMPPTPEPE  
 CEKQFQPYFIPIN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_005214

**ORF Size:** 669 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\\_005214.5](#)

**RefSeq Size:** 1997 bp

**RefSeq ORF:** 672 bp

**Locus ID:** 1493

**UniProt ID:** [P16410](#)

**Cytogenetics:** 2q33.2

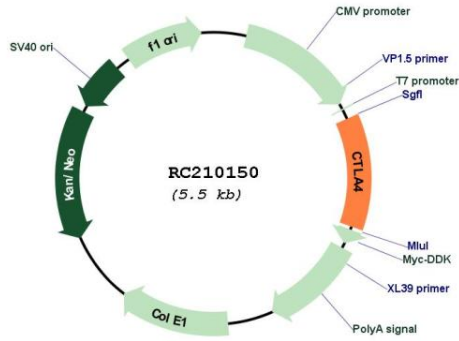
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Autoimmune thyroid disease, Cell adhesion molecules (CAMs), T cell receptor signaling pathway

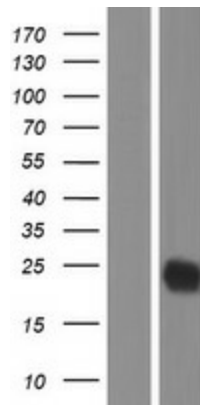
**MW:** 24.7 kDa

**Gene Summary:** This gene is a member of the immunoglobulin superfamily and encodes a protein which transmits an inhibitory signal to T cells. The protein contains a V domain, a transmembrane domain, and a cytoplasmic tail. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. The membrane-bound isoform functions as a homodimer interconnected by a disulfide bond, while the soluble isoform functions as a monomer. Mutations in this gene have been associated with insulin-dependent diabetes mellitus, Graves disease, Hashimoto thyroiditis, celiac disease, systemic lupus erythematosus, thyroid-associated orbitopathy, and other autoimmune diseases. [provided by RefSeq, Jul 2008]

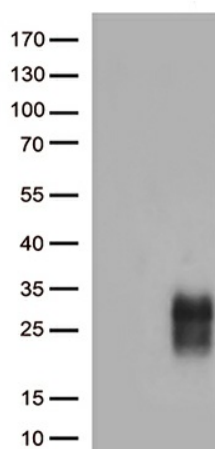
Product images:



Circular map for RC210150



Western blot validation of overexpression lysate (Cat# [LY417438]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210150 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CTLA4 (Cat# RC210150, 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-CTLA4 (Cat# [TA813086])(1:1000).