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# Product datasheet for RC206562

## CD247 (NM_000734) Human Tagged ORF Clone

## Product data:

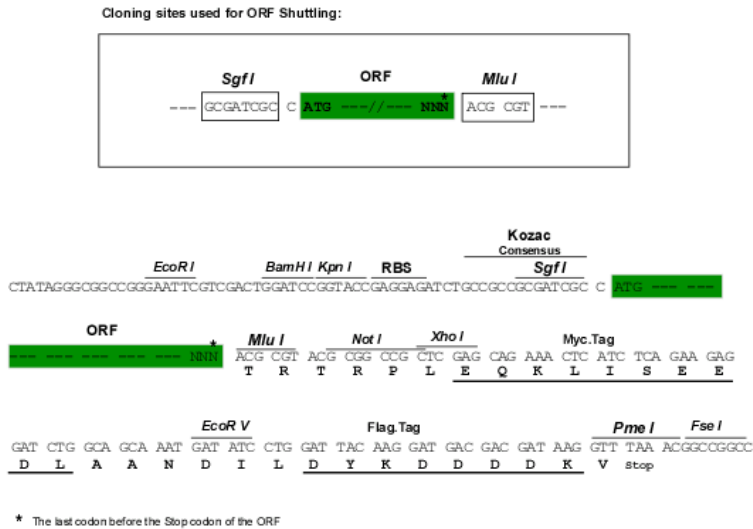| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | CD247 (NM_000734) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | CD247 |
| **Synonyms:** | CD3-ZETA; CD3H; CD3Q; CD3Z; IMD25; T3Z; TCRZ |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **ORF Nucleotide Sequence:** | >RC206562 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s)<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC<br><br>ATGAAGTGGAAGGCGCTTTTCACCGCGGCCATCCTGCAGGCACAGTTGCCGATTACAGAGGCACAGAGCT TTGGCCTGCTGGATCCCAAACTCTGCTACCTGCTGGATGGAATCCTCTTCATCTATGGTGTCATTCTCAC TGCCTTGTTCCTGAGAGTGAAGTTCAGCAGGAGCGCAGACGCCCCCGCGTACCAGCAGGGCCAGAACCAG CTCTATAACGAGCTCAATCTAGGACGAAGAGAGGAGTACGATGTTTTGGACAAGAGACGTGGCCGGGACC CTGAGATGGGGGGAAAGCCGCAGAGAAGGAAGAACCCTCAGGAAGGCCTGTACAATGAACTGCAGAAAGA TAAGATGGCGGAGGCCTACAGTGAGATTGGGATGAAAGGCGAGCGCCGGAGGGGCAAGGGGCACGATGGC CTTTACCAGGGTCTCAGTACAGCCACCAAGGACACCTACGACGCCCTTCACATGCAGGCCCTGCCCCCTC GC<br><br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA |
| **Protein Sequence:** | >RC206562 protein sequence<br>Red=Cloning site Green=Tags(s)<br><br>MKWKALFTAAILQAQLPITEAQSFGLLDPKLCYLLDGILFIYGVILTALFLRVKFSRSADAPAYQQGQNQ LYNELNLGRREEYDVLDKRRGRDPEMGGKPQRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHDG LYQGLSTATKDTYDALHMQALPPR<br><br>TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| **Chromatograms:** | https://cdn.origene.com/chromatograms/mk6328_a03.zip |

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| **Restriction Sites:** | SgfI-MluI |
| **Cloning Scheme:** | |



Cloning sites used for ORF Shuttling:

Sgf I — GCGATCGC C ATG ----//---- NNN — ORF — Mlu I — ACG CGT ---

EcoR I — BamH I Kpn I — RBS — Kozac Consensus — Sgf I
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG ---- ----

ORF — NNN
Mlu I — ACG CGT — Not I — ACG CGG CCG — Xho I — CTC GAG — Myc.Tag — CAG AAA CTC ATC TCA GAA GAG
T R T R P L E Q K L I S E E

EcoR V — GAT CTG GCA GCA AAT GAT ATC CTG GAT — Flag.Tag — TAC AAG GAT GAC GAC GAT AAG — Pme I — GTT TAA — Fse I — ACGGCCGGCC
D L A A N D I L D Y K D D D D K V Stop

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

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| **ACCN:** | NM_000734 |
| **ORF Size:** | 492 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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_000734.4 |
| **RefSeq Size:** | 1687 bp |
| **RefSeq ORF:** | 492 bp |
| **Locus ID:** | 919 |
| **UniProt ID:** | P20963 |

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|---|---|
| **Cytogenetics:** | 1q24.2 |
| **Domains:** | ITAM |
| **Protein Families:** | Druggable Genome, Transmembrane |
| **Protein Pathways:** | Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway |
| **MW:** | 18.7 kDa |
| **Gene Summary:** | The protein encoded by this gene is T-cell receptor zeta, which together with T-cell receptor alpha/beta and gamma/delta heterodimers, and with CD3-gamma, -delta and -epsilon, forms the T-cell receptor-CD3 complex. The zeta chain plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. Low expression of the antigen results in impaired immune response. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008] |

## Product images:
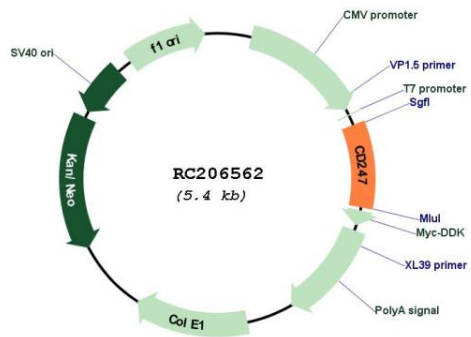


Circular map for RC206562
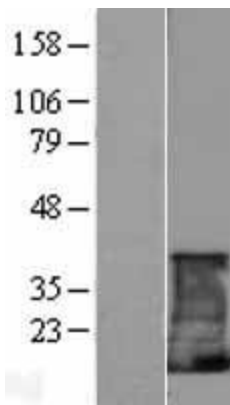


Western blot validation of overexpression lysate (Cat# [LY424538]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206562 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).
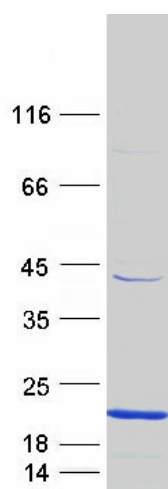
Coomassie blue staining of purified CD247 protein (Cat# [TP306562]). The protein was produced from HEK293T cells transfected with CD247 cDNA clone (Cat# RC206562) using MegaTran 2.0 (Cat# [TT210002]).