

Product datasheet for **MG224619**

Cd247 (NM_031162) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cd247 (NM_031162) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Cd247
Synonyms: 4930549J05Rik; A430104F18Rik; AW552088; Cd3; Cd3-eta; Cd3-zeta; Cd3h; Cd3z; Cd3zeta; T3z; Tcrk
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG224619 representing NM_031162
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGTGGAAAGTGTCTGTTCTCGCTGCATCCTCCACGTGCGGTTCCAGGAGCAGAGGCACAGAGCT
 TTGGTCTGCTGGATCCCAAACCTGCTACTTGCTAGATGGAATCCTTTCATCTACGGAGTCATCATCAC
 AGCCCTGTACCTGAGAGCAAAATTCAGCAGGAGTGCAGAGACTGCTGCCAACCTGCAGGACCCCAACCAG
 CTCTACAATGAGCTCAATCTAGGGCGAAGAGAGGAATATGACGTCTTGGAGAAGAAGCGGGCTCGGGATC
 CAGAGATGGGAGGCAAACAGCAGAGGAGGAGGAACCCCAAGGCGTATACAATGCACTGCAGAAAGA
 CAAGATGGCAGAAGCCTACAGTGAATCGGCACAAAAGGCGAGAGCGGAGGCAAGGGGCACGATGCC
 CTTTACCAGGACAGCCACTTCCAAGCAGTGCAGTTCGGGAACAGAAGAGAGAGAAGGTTCAGAACTCA
 CAAGGACCCCTTGGTTAAGAGCCCGCCCAAGGTGAAAGCACCCAGCAGAGTAGCCAATCTGTGCCAG
 CGTCTTACGATCCCCACTCTGTGGAGTCCATGGCCACCCAGTAGCAGCTCCAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG224619 representing NM_031162
 Red=Cloning site Green=Tags(s)

MKWKVSVLACILHVRFPGAEASQSFLLDPKLCYLLDGILFIYGVIIITALYLAKFSRSAETAANLQDPNQ
 LYNELNLGRREYDVLEKKRARDPEMGGKQRRRNPQEGVYNALQDKMAEAYSEIGTKGERRRGKGDHGD
 LYQDSHFQAVQFGNRREREGSELTRTLGLRARPKGESTQSSQSCASVFSIPTLWSPWPSSSSQL

TRTRPLE - GFP Tag - V

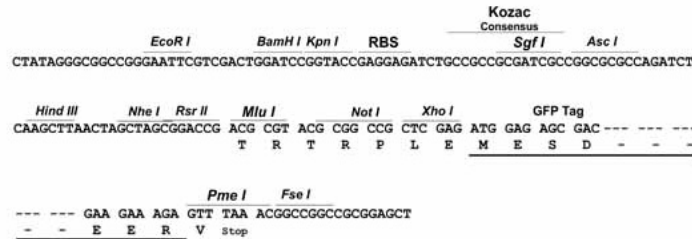


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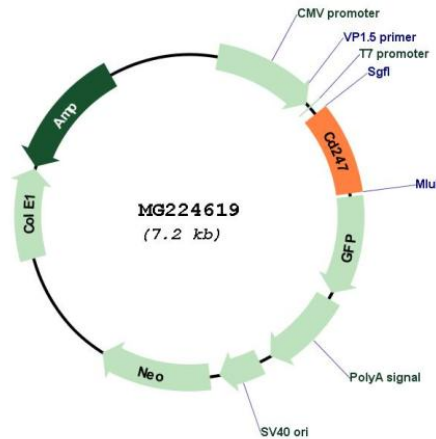
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_031162

ORF Size: 618 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:	<u>NM_031162.4</u> , <u>NP_112439.1</u>
RefSeq Size:	1358 bp
RefSeq ORF:	621 bp
Locus ID:	12503
UniProt ID:	<u>P24161</u>
Cytogenetics:	1 73.14 cM
Gene Summary:	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways. CD3Z ITAMs phosphorylation creates multiple docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme. Plays an important role in intrathymic T-cell differentiation. Additionally, participates in the activity-dependent synapse formation of retinal ganglion cells (RGCs) in both the retina and dorsal lateral geniculate nucleus (dLGN). [UniProtKB/Swiss-Prot Function]