

Product datasheet for **RN208762**

Cd3g (NM_001077646) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cd3g (NM_001077646) Rat Untagged Clone
Tag: Tag Free
Symbol: Cd3g
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN208762 representing NM_001077646
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCAGGGGAAAGTTGGCTGGCCTCTTCTGGTGATCTCTCTTCAAGGCACCATGGCCAGC
AAAAAGAAGAAAAGCATTGGTAAAAGTGGATGACAGCCAAGGAGATGGCTCTGTACTTCTGACTTGTGA
CTTCAATGAGAAGACTATCACATGGCTTAAAGATGGGCACAGAATAAGTCCTCCAATGCAACTAAAAGC
ACGTGGAATCTGGCAACGGTGCCAAAGACCCTCGAGGCATGTATCAGTGCCGAGGAGCAAGAAGAAGT
CGCAGCTCTGCAAGTGTACTACAGACTGTGTGAGAACTGCATTGAGCTAAATATGGGCACTGTGTCCGG
CTTTATCTTCGCTGAAATCATCAGCATTTTCTTCTTGCTGTTGGTGTATACTTCATTGCTGGACAGGAT
GGAGTTCGCCAGTCAAGAGCTTCAGACAAGCAGACTCTGTTGCAAAATGAACAGGTCTACCAGCCCTCA
AGGACCGGAATATGAACAGTACAGCCGTCTCCAAGGAAACCAAGTGAGAAAGAAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001077646
Insert Size: 549 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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).



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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_001077646.2](#), [NP_001071114.1](#)

RefSeq Size: 617 bp

RefSeq ORF: 549 bp

Locus ID: 300678

UniProt ID: [Q64159](#)

Cytogenetics: 8q22

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. In addition to this role of signal transduction in T-cell activation, CD3G plays an essential role in the dynamic regulation of TCR expression at the cell surface. Indeed, constitutive TCR cycling is dependent on the di-leucine-based (diL) receptor-sorting motif present in CD3G.[UniProtKB/Swiss-Prot Function]