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Product datasheet for RR208762

Cd3g (NM_001077646) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cd3g (NM_001077646) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cd3g
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR208762 representing NM_001077646 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGAGCAGGGGAAAGGTTTGGCTGGCCTCTTCCTGGTGATCTCTCTTCTTCAAGGCACCATGGCCCAGC AAAAAGAAGAAAAGCATTTGGTAAAAGTGGATGACAGCCAAGGAGATGGCTCTGTACTTCTGACTTGTGA CTTCAATGAGAAGACTATCACATGGCTTAAAGATGGGCACAGAATAAGTCCTCCAAATGCAACTAAAAGC ACGTGGAATCTGGGCAACGGTGCCAAAGACCCTCGAGGCATGTATCAGTGCCGAGGAGCAAAGAAGAAGT CGCAGCTCCTGCAAGTGTACTACAGACTGTGTGAGAACTGCATTGAGCTAAATATGGGCACTGTGTCCGG CTTTATCTTCGCTGAAATCATCAGCATTTTCTTCCTTGCTGTTGGTGTATACTTCATTGCTGGACAGGAT GGAGTTCGCCAGTCAAGAGCTTCAGACAAGCAGACTCTGTTGCAAAATGAACAGGTCTACCAGCCCCTCA AGGACCGGGAATATGAACAGTACAGCCGTCTCCAAGGAAACCAAGTGAGAAAGAAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RR208762 representing NM_001077646 Red=Cloning site Green=Tags(s) MEQGKGLAGLFLVISLLQGTMAQQKEEKHLVKVDDSQGDGSVLLTCDFNEKTITWLKDGHRISPPNATKS TWNLGNGAKDPRGMYQCRGAKKKSQLLQVYYRLCENCIELNMGTVSGFIFAEIISIFFLAVGVYFIAGQD GVRQSRASDKQTLLQNEQVYQPLKDREYEQYSRLQGNQVRKK TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Restriction Sites:	SgfI-MluI

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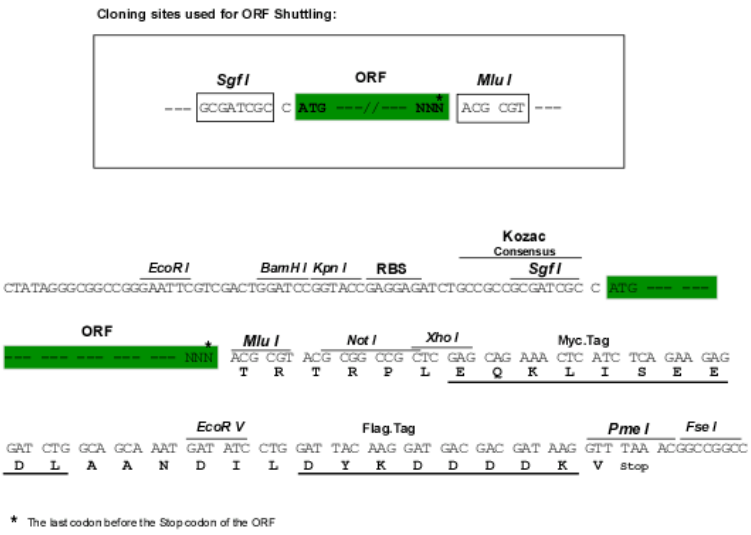
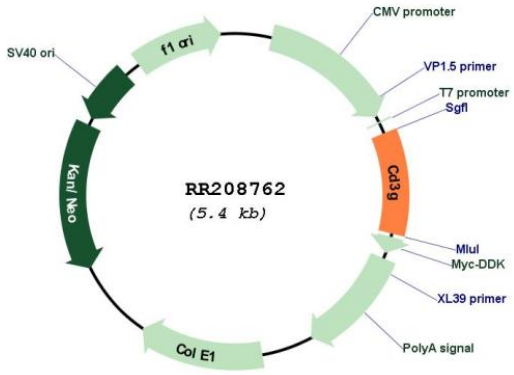
Cloning Scheme:



Plasmid Map:



ACCN: NM_001077646

ORF Size: 546 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_001077646.2, NP_001071114.1
RefSeq Size:	617 bp
RefSeq ORF:	549 bp
Locus ID:	300678
UniProt ID:	Q64159
Cytogenetics:	8q22
MW:	20.5 kDa
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]