

Product datasheet for **MR201480**

Cd3d (NM_013487) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cd3d (NM_013487) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Cd3d
Synonyms: T3d
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201480 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAACACAGCGGGATTCTGGCTAGTCTGATACTGATTGCTGTTCTCCCCAAGGGAGCCCTTCAAGG
TACAAGTGACCGAATATGAGGACAAAGTATTTGTGACCTGCAATACCAGCGTCATGCATCTAGATGGAAC
GGTGAAGGATGGTTTGCAAAGAATAAAACACTCAACTGGGCAAAGGCGTTCTGGACCCACGAGGGATA
TATCTGTGTAATGGACAGAGCAGCTGGCAAAGTGGTGTCTTCTGTGCAAGTCCATTACCGAATGTGCC
AGAACTGTGTGGAGCTAGACTCGGGCACCATGGCTGGTGTCTCATTGACCTCATCGCAACTCTGCT
CCTGGCTTTGGGCGTCTACTGCTTTCAGGACATGAGACCGGAAGGCCTTCTGGGCTGCTGAGGTTCAA
GCACTGCTGAAGAATGAGCAGCTGTATCAGCCTCTTCGAGATCGTGAAGATACCCAGTACAGCCGCTCTTG
GAGGGAAGTGGCCCCGGAACAAGAAATCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201480 protein sequence
Red=Cloning site Green=Tags(s)

MEHSGILASLILIAVLPQGSPFKVQVTEYEDKVFVTCNTSVMHLDGTVEGWFAKNKTLNLGKGVLDPRGI
YLCNGTEQLAKVSSVQVHYRMCQNCVELDSGTMAGVIFIDLIATLLALGVYCFAGHETGRPSGAAEVQ
ALLKNEQLYQPLRDREDTQYSRLGGNWP RNKKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_013487

ORF Size: 522 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_013487.2](#), [NP_038515.2](#)

RefSeq Size: 1330 bp

RefSeq ORF: 522 bp

Locus ID: 12500

UniProt ID: [P04235](#)

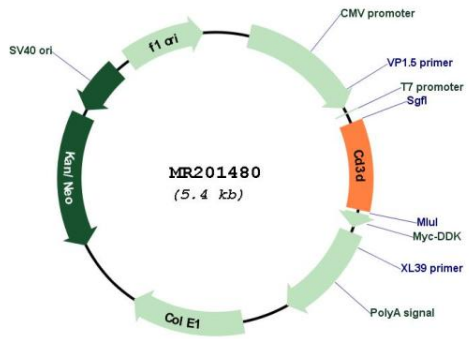
Cytogenetics: 9 24.84 cM

MW: 19 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 of this role of signal transduction in T-cell activation, CD3D plays an essential role in thymocyte differentiation. Indeed, participates in correct intracellular TCR-CD3 complex assembly and surface expression. In absence of a functional TCR-CD3 complex, thymocytes are unable to differentiate properly (PubMed:10935641). Interacts with CD4 and CD8 and thus serves to establish a functional link between the TCR and coreceptors CD4 and CD8, which is needed for activation and positive selection of CD4 or CD8 T-cells.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201480