

Product datasheet for **MR226754**

Cd4 (NM_013488) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cd4 (NM_013488) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cd4
Synonyms:	L3T4; Ly-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR226754 representing NM_013488
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGTGCCGAGCCATCTCTTAGGGCCTTGTCTGTCTGTCTGCAGCTGTCAAACTCTAGCTGTCA
 CTAAGGGAAGACGCTGGTGTGGGGAAGGAAGGGAATCAGCAGAACTGCCCTGCGAGAGTTCCAGAA
 GAAGATCACAGTCTTACCTGGAAGTTCTCTGACCAGAGGAAGATTCTGGGGCAGCATGGCAAAGGTGTA
 TTAATTAGAGGAGGTTCCCTTCGCAGTTTGATCGTTTTGATTCCAAAAAGGGGCATGGGAGAAAGGAT
 CGTTTCTCTCATCATCAATAAACTTAAGATGGAAGACTCTCAGACTTATATCTGTGAGCTGGAGAACAG
 GAAAGAGGAGGTGGAGTTGTGGGTGTTCAAAGTGACCTTCAGTCCGGGTACCAGCCTGTTGCAAGGGCAG
 AGCCTGACCTGACCTGGATAGCAACTTAAGGTCTCTAACCCCTTGACAGAGTGCAAACAAAAAGG
 GTAAGTGTGTCAGTGGTCCAAAGTTCTCTCCATGTCCAACTAAGGGTTCAGGACAGCGACTTCTGGAA
 CTGCACCGTGACCTGGACCAGAAAAAGAACTGGTTCGGCATGACTCTCAGTGTGGGTTTTTCAGAGC
 ACAGCTATCACGGCTATAAGAGTGAGGAGAGTCAAGCGAGTTCTCTCCCACTCAACTTTCAGAGGG
 AAAACGGTGGGGAGAGCTGATGTGGAAGGCAGAGAAGGATTCTTTCTCCAGCCCTGGATCTCCTTCTC
 CATAAAGAACAAAGAGGTGTCCGTACAAAAGTCCACAAAGACCTCAAGTCCAGCTGAAGGAAACGCTC
 CCACTCACCTCAAGATACCCAGGTCCTCGTTAGTTTGTGGTCTGGCAACCTGACTCTGACTCTGG
 ACAAGGGGACTGCATCAGGAAGTGAACCTGGTGGTGTGAAAGTGGCTCAGCTCAACAATACTTTGAC
 CTGTGAGGTGATGGGACTACCTCTCCAAGATGAGACTGACCTGAAGCAGGAGAACCAGGAGGCCAGG
 GTCTCTGAGGAGCAGAAAGTAGTTCAAGTGGTGGCCCCGAGACAGGGCTGTGGCAGTGTCTACTGAGTG
 AAGGTGATAAGGTCAAGATGGACTCCAGGATCCAGGTTTTATCCAGAGGGGTGAACCAGACAGTGTTCCT
 GGCTTGCGTGTGGGTGGCTCCTTCGGCTTTCTGGGTTTTCTGGGCTCTGCATCCTCTGCTGTGTCAAG
 TGCCGGCCACCAACAGCGCCAGGCAGCACGAATGTCTCAGATCAAGAGGCTCCTCAGTGAGAGAAGACCT
 GCCAGTGCCCCACCAGATGCAGAAGAGCCATAATCTCATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226754 representing NM_013488
 Red=Cloning site Green=Tags(s)

MCRAISLRLLLLLLQLSLLAVTQGKTLVLGKEGESAELPCESSQKKITVFTWKFSQQRKILGQHGKGV
 LIRGGSPSQDFRFDSSKGAWEKGSFPLIINKLMEDSQTICYCELENRKEEVELWVFKVTFSPGTSLLOQGQ
 SLTLTLDNSKVSNNPLTECKHKKGKVVSGSKVLSMSNLRVQDSDFWNCTVTLQKKNWFGMTLSVLGFS
 TAITAYKSEGESAESFPLNFAEENGWELMWKAEKDSFFQPWISFSIKNKEVSVQKSTKDLKLQLKQKEL
 PLTLKIPQVSLQFAGSGLTLTLDKGLHQEVLVVMKVAQLNNTLTCEVMGPTSPKMRLTLKQENQEAR
 VSEEQKVQVQVAPETGLWQCLLSEGDKVKMDSRIQVLSRGNQTVFLACVLGGSFGLGLGLCILCCVR
 CRHQQRQAARMSQIKRLLSEKKTQCOPHRMQKSHNLI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_013488

ORF Size: 1371 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_013488.3](#)

RefSeq Size: 3095 bp

RefSeq ORF: 1374 bp

Locus ID: 12504

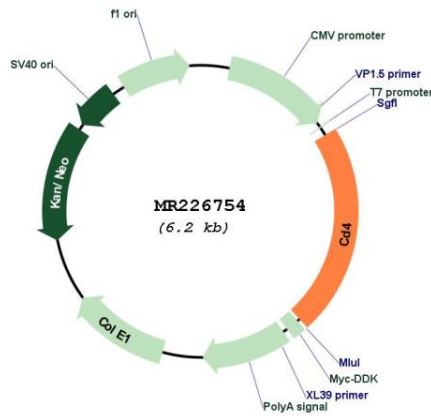
UniProt ID: [P06332](#)

Cytogenetics: 6 59.17 cM

MW: 51.7 kDa

Gene Summary: Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class II molecule:peptide complex. The antigens presented by class II peptides are derived from extracellular proteins while class I peptides are derived from cytosolic proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class II presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. LCK then initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of T-helper cells. In other cells such as macrophages or NK cells, plays a role in differentiation/activation, cytokine expression and cell migration in a TCR/LCK-independent pathway. Participates in the development of T-helper cells in the thymus and triggers the differentiation of monocytes into functional mature macrophages.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226754