

Product datasheet for **MR222734**

Cadm1 (NM_018770) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cadm1 (NM_018770) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cadm1
Synonyms:	2900073G06Rik; 3100001I08Rik; AI987920; BI2; Igsf4; Igsf4a; Necl2; RA175; RA175A; RA175B; RA175C
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR222734 representing NM_018770
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGAGTGTGTGCTGCCGAGCGGATCCAGTGTGCGCGGCAGCGGTGTGGCGCGCGCGCGCGCC
 CTCAGGGCTCCGGCTCCGGCTCCTGCTGTTGCTCCTTTTCGGCCGCGCACTGATCCCCACAGGTGATGG
 ACAGAATCTGTTTACTAAAGACGTGACAGTGATTGAAGGAGAAGTGCAACCATCAGCTGCCAGGTCAAT
 AAGAGTGACGACTCAGTGATCCAGCTCCTGAACCCCAACAGGCAGACCATTTACTTCAGGGACTTCAGGC
 CTTTGAAGGACAGCAGGTTTCAGCTGCTGAATTTTCTAGCAGTGAACCTCAAAGTGTCACTGACGAATGT
 CTCAATCTCGGATGAAGGGAGATACTTCTGCCAGCTCTACACGGACCCCCACAGGAGAGTTACACCACC
 ATCACAGTCTGGTTCCTCCACGTAACCTGATGATCGATATCCAGAAAGACACGGCAGTTGAAGGGGAGG
 AGATTGAAGTCAACTGTACTGCCATGGCCAGCAAGCCAGCGACGACCATCAGGTGGTTCAAAGGGAACAA
 GGAACCTAAAGGCAAATCAGAGGTGGAGGAGTGGTCCGACATGTACACTGTGACCAGTCACTGATGCTG
 AAGGTGCACAAGGAGGACGACGGGTCCCGGTGATCTGCCAGGTGGAGCACCTCGCGTCACTGGAAACC
 TGCAGACCCAGCGCTATCTAGAAGTGCAGTATAAACCGCAAGTGCATATCCAGATGACTTACCCTCTGCA
 AGGCCTAACCCGGGAAGGGGATGCATTTGAGTTAACGTGTGAAGCCATCGGGAAGCCCCAGCCTGTGATG
 GTAACCTGGGTGAGAGTCGATGATGAAATGCCTCAACATGCCGTACTGTCTGGGCCAAACCTGTTTCATCA
 ATAACCTAAACAAAACAGATAACGGTACTTACCCTGTGAGGCTTCCAACATAGTGGGAAAGGCTCATTC
 GGACTATATGCTGATGTATACGATCCCCCACAACCTATCCCTCCTCCACAACAACCACCACCCTACC
 ACCACCACCACCACCACCTCCTTACCATCATCAGATTCTCGAGCAGGTGAAGAGGGGACCATTGGGG
 CAGTGGACCACGCAGTGATTGGTGGCGTGTAGCCGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
 TCTGGGCCGCTATTTTGGCAGACATAAAGGTACATACTTCACTCATGAAGCCAAAGGAGCCGATGACGCA
 GCAGACGCAGACACAGCTATAATCAATGCAGAAGGAGGACAGAACAACCTCCGAAGAAAAGAAAGAGTACT
 TCATC

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR222734 representing NM_018770
 Red=Cloning site Green=Tags(s)

MASAVLPSGSQCAAAAAVAAAAAPPGLRLRLLLLLL SAAALIPTGDGQNLFTKDVTVIEGEVATISCQVN
 KSDDSVIQLLNPNRQTIYFRDFRPLKDSRFQLLNFSSSELKVSLTNVSI SDEGRYFCQLYDPPQESYTT
 ITVLVPPRNLMIQKDTAVEGEEIEVNCTAMASKPATTIRWFKGNKELKKGKSEVEEWSDMYTVTSQML
 KVHKEDDGVPVICQVEHPAVTGNLQTRYLEVQYKQVHIQMTYPLQGLTREGDAFELTCEAIGKPQPM
 VTWVRVDEMPQHAVLSGPNLFINLNKTDNGTYRCEASNIVGKAHSDYMLYVYDPPPTTIPPTTTTTT
 TTTTTTILTIITDSRAGEEGTIGAVDHAVIGGVVAVVVFAMLCLLIILGRYFARHKGTYFTHEAKGADDA
 ADADTAIINAEGGQNNSEEKKEYFI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

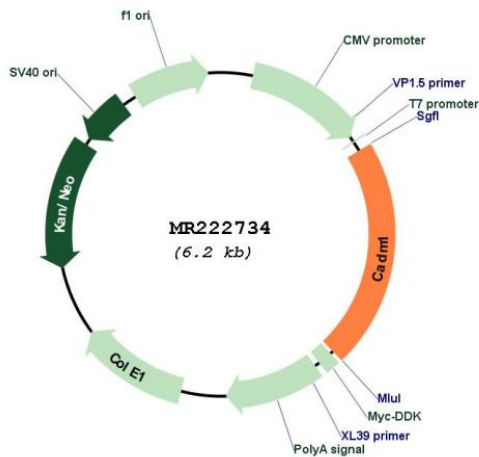
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM_018770

ORF Size: 1335 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_018770.3](#), [NP_061240.3](#)

RefSeq Size: 4354 bp

RefSeq ORF: 1338 bp

Locus ID: 54725

UniProt ID: [Q8R5M8](#)

Cytogenetics: 9 A5.3

MW: 49.1 kDa

Gene Summary: Mediates homophilic cell-cell adhesion in a Ca(2+)-independent manner. Also mediates heterophilic cell-cell adhesion with CADM3 and NECTIN3 in a Ca(2+)-independent manner. Acts as a tumor suppressor in non-small-cell lung cancer (NSCLC) cells. Interaction with CRTAM promotes natural killer (NK) cell cytotoxicity and interferon-gamma (IFN-gamma) secretion by CD8+ cells in vitro as well as NK cell-mediated rejection of tumors expressing CADM3 in vivo. May contribute to the less invasive phenotypes of lepidic growth tumor cells. In mast cells, may mediate attachment to and promote communication with nerves. CADM1, together with MITF, is essential for development and survival of mast cells in vivo. Acts as a synaptic cell adhesion molecule and plays a role in the formation of dendritic spines and in synapse assembly. May be involved in neuronal migration, axon growth, pathfinding, and fasciculation on the axons of differentiating neurons. May play diverse roles in the spermatogenesis including in the adhesion of spermatocytes and spermatids to Sertoli cells and for their normal differentiation into mature spermatozoa.[UniProtKB/Swiss-Prot Function]