

## Product datasheet for **MR222732**

### **Cadm1 (NM\_207675) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cadm1 (NM_207675) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cadm1
Synonyms:	2900073G06Rik; 3100001I08Rik; AI987920; BI2; Igsf4; Igsf4a; Necl2; RA175; RA175A; RA175B; RA175C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR222732 representing NM\_207675  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGAGTGTGTGCTGCCGAGCGGATCCAGTGTGCGCGGCAGCGGCTGTGGCGCGCGCGCGCGCC  
 CTCAGGGCTCCGGCTCCGGCTCCTGCTGTTGCTCCTTTTCGGCCGCGCACTGATCCCCACAGGTGATGG  
 ACAGAATCTGTTTACTAAAGACGTGACAGTGATTGAAGGAGAAGTGGCAACCATCAGCTGCCAGGTCAAT  
 AAGAGTGACGACTCAGTGATCCAGCTCCTGAACCCCAACAGGCAGACCATTTACTTCAGGGACTTCAGGC  
 CTTTGAAGGACAGCAGGTTTCAGCTGCTGAATTTTCTAGCAGTGAACCTCAAAGTGTCACTGACGAATGT  
 CTCAATCTCGGATGAAGGGAGATACTTCTGCCAGCTCTACACGGACCCCCACAGGAGAGTTACACCACC  
 ATCACAGTCTGGTTCCTCCACGTAACCTGATGATCGATATCCAGAAAGACACGGCAGTTGAAGGGGAGG  
 AGATTGAAGTCAACTGTACTGCCATGGCCAGCAAGCCAGCGACGACCATCAGGTGGTTCAAAGGGAACAA  
 GGAACCTAAAGGCAAATCAGAGGTGGAGGAGTGGTCGGACATGTACACTGTGACCAGTCAGCTGATGCTG  
 AAGGTGACAAGGAGGACGACGGGTCCCGGTGATCTGCCAGGTGGAGCACCCCTGCGGTCACTGGAAACC  
 TGCAGACCCAGCGCTATCTAGAAGTGCAGTATAAACCGCAAGTGCATATCCAGATGACTTACCCTCTGCA  
 AGGCCTAACCCGGGAAGGGGATGCATTTGAGTTAACGTGTGAAGCCATCGGGAAGCCCCAGCCTGTGATG  
 GTAACCTGGGTGAGAGTCGATGATGAAATGCCTCAACATGCCGTACTGTCTGGGCCAAACCTGTTTATCA  
 ATAACCTAAACAAAACAGATAACGGTACTTACCCTGTGAGGCTTCCAACATAGTGGGAAAGGCTCATTC  
 GGACTATATGCTGATGTATACGATCCCCCACAACATAACCTCCTCCACAACAACCACCACCCTACC  
 ACCACCACCACCACCACCTCCTTACCATCATCACAGACACCACGGCGACGACAGAACCAGCAGTTCAGC  
 ATTCGAGCAGGTGAAGAGGGACCATTGGGGCAGTGGACCAGCAGTATTGGTGGCGTCGTGACCCGT  
 GGTGGTGTGGCCATGCTATGCTTGTCTCATCTTCTGGCCGCTATTTTGGCCAGACATAAAGGTACATAC  
 TCACTCATGAAGCCAAAGGAGCCGATGACGCAGCAGACGACAGCAGCTATAATCAATGCAGAAGGAG  
 GACAGAACAACCTCGAAGAAAAGAAAGTACTTCATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR222732 representing NM\_207675  
 Red=Cloning site Green=Tags(s)

MASAVLPSGSQCAAAAAVAAAAAPPGLRLRLLLLLL SAAALIPTGDQNLFTKDVTVIEGEVATISCQVN  
 KSDDSVIQLLNPNRQTIYFRDFRPLKDSRFQLLNFSSELKVSLTNVSI SDEGRYFCQLYDPPQESYTT  
 ITVLVPPRNLMIQKDTAVEGEEIEVNCTAMASKPATTIRWFKGNKELKKGSEVEEWSDMYTVTSQML  
 KVHKEDDGVPVICQVEHPAVTGNLQTRYLEVQYKQVHIQMTYPLQGLTREGDAFELTCEAIGKPQPM  
 VTWVRVDEMPQHAVLSGPNLFINLNKTDNGTYRCEASNI VGKAHSDYMLVYVDPPTTIPPTTTTTTT  
 TTTTTTILTIITDTATTEPAVHDSRAGEEGTIGAVDHA VIGGVAVVVVFAMLCLLIILGRYFARHKGT  
 FTHEAKGADDAADATAIINAEGQNNSEEKEYFI

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9017\\_d10.zip](https://cdn.origene.com/chromatograms/mm9017_d10.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_207675

**ORF Size:** 1368 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

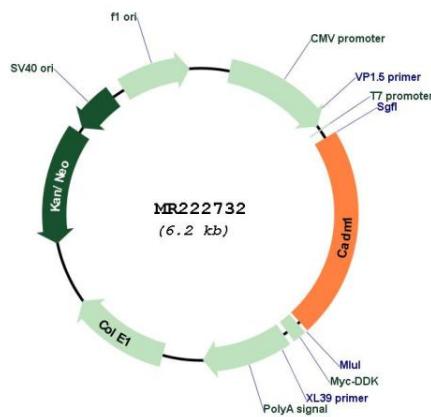
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_207675.2, NP\\_997558.2](#)  
**RefSeq Size:** 4387 bp  
**RefSeq ORF:** 1371 bp  
**Locus ID:** 54725  
**UniProt ID:** [Q8R5M8](#)  
**Cytogenetics:** 9 A5.3  
**MW:** 50.2 kDa

**Gene Summary:** Mediates homophilic cell-cell adhesion in a Ca<sup>2+</sup>-independent manner. Also mediates heterophilic cell-cell adhesion with CADM3 and NECTIN3 in a Ca<sup>2+</sup>-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]

### Product images:



Circular map for MR222732