

Product datasheet for **RC238425**

SynCAM (CADM1) (NM_001301043) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SynCAM (CADM1) (NM_001301043) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CADM1
Synonyms:	BL2; IGSF4; IGSF4A; Necl-2; NECL2; RA175; sglGSF; ST17; sTSLC-1; SYNCAM; synCAM1; TSLC1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238425 representing NM_001301043
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGAGTGTAGTGCTGCCGAGCGGATCCAGTGTGCGCGGCAGCGGGCGGCGGCCCTCCGGGG
 TCCGGCTCCGGCTTCTGCTGTTGCTCTTCTCCGCGCGGCACTGATCCCCACAGGTGATGGCAGAATCT
 GTTTACGAAAGACGTGACAGTGTGAGGGAGAGGTTGCGACCATCAGTTGCCAAGTCAATAAGAGTGAC
 GACTCTGTGATTGACTACTGAATCCCAACAGGCAGACCATTTATTTAGGGACTTCAGGCCTTTGAAGG
 ACAGCAGGTTTCAGTTGCTGAATTTTTCTAGCAGTGAACCAAAGTATCATTGACAAACGCTCAATTTT
 TGATGAAGGAAGATACTTTGCCAGCTCTATACCGATCCCCACAGAAAGTTACACCACCATCACAGTC
 CTGGTCCCACCACGTAATCTGATGATCGATATCCAGAAAGACACTGCGGTGGAAGGTGAGGAGATTGAAG
 TCAACTGCACTGCTATGGCCAGCAAGCCAGCCAGCACTATCAGGTGGTTCAAAGGGAACACAGAGCTAAA
 AGGCAAAATCGGAGGTGGAAGAGTGGTCAACATGTACACTGTGACCAGTCAGCTGATGCTGAAGGTGCAC
 AAGGAGGACGATGGGGTCCCAGTGTCTGCCAGGTGGAGCACCCCTGCGGTCACTGAAAACCTGCAGACCC
 AGCGGTATCTAGAAGTACAGTATAAGCCTCAAGTGCACATTCAGATGACTTATCCTCTACAAGGCTTAAC
 CCGGGAAGGGGACGCGCTTGAGTTAACATGTGAAGCCATCGGGAAGCCCCAGCCTGTGATGGTAACCTGG
 GTGAGAGTCGATGATGAAATGCCTCAACACGCGCTACTGTCTGGGCCAACCTGTTTCATCAATAACCTAA
 ACAAAACAGATAATGGTACATACCGCTGTGAAGCTTCAAACATAGTGGGAAAGCTCACTCGGATTATAT
 GCTGTATGTATACGATCCCCCACTATCCCTCCTCCACAACAACCACCACCACCACCACCACCACC
 ACCACCACCATCCTTACCATCATCACAGACACAACGGCGACGACAGAACCAGCAGTTCACGGCCTTACTC
 AGTTGCCCAATTCGCAGAAGAAGTGGACAGTGGGACCTCTCAGATTCGAGCAGGTGAAGAAGGCTC
 GATCAGGGCAGTGGATCATGCCGTGATCGGTGGCGTCTGGCGGTGGTGGTGTTCGCCATGCTGTGCTTG
 CTCATCATTCTGGGGCGTATTTTGGCAGACATAAAGGTACATACTTCACTCATGAAGCCAAAGGAGCCG
 ATGACGCAGCAGACGACAGCTATAATCAATGCAGAAGGAGGACAGAACTCCGAAGAAAAGAA
 AGAGTACTTCATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238425 representing NM_001301043
 Red=Cloning site Green=Tags(s)

MASVVLPSGSQCAAAAAAPPGLRLRLLLLLFSAAALIPTGDGQNLFTKDVTVIEGEVATISCQVNKSD
 DSVIQLLNPNRQTIYFRDFRPLKDSRFQLLNFSSELKVSLTNVSI SDEGRYFCQLYTDPPQESYTTITV
 LVPPRNLMIQKDTAVEGEEIEVNCTAMASKPATTIRWFKGNTELKKGSEVEEWSMYTVTSQMLKVH
 KEDDGVVICQVEHPAVTGNLQTRYLEVQYKQVHIQMTYPLQGLTREGDALELTCEAIGKPQPMVMTW
 VRVDDEMPQHAVLSGPNLFINNLNKTDNGTYRCEASNIVGKAHSDYMLVYVDPPTTIPPTTTTTTTTT
 TTTILTIITDATTTEPAVHGLTQLPNSAEELDSEDLSDSRAGEEGSIRAVDHAVIGGVVAVVVFAMLC
 LIILGRYFARHKGYFTHEAKGADDAADADTAIINAEGGQNNSEEKKEYFI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

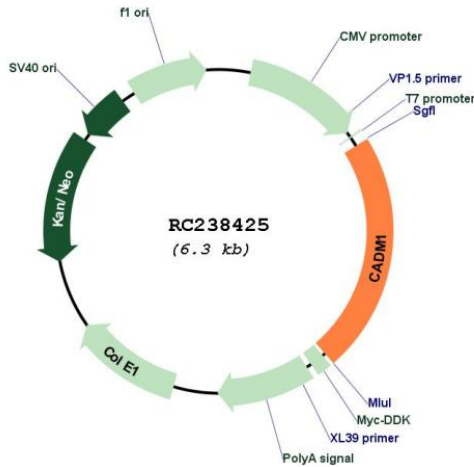
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001301043

ORF Size: 1413 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_001301043.2](#)

RefSeq Size: 4411 bp

RefSeq ORF: 1416 bp

Locus ID: 23705

UniProt ID: [Q9BY67](#)

Cytogenetics: 11q23.3

Protein Families: Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs)

MW: 52 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 (By similarity). 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]