

## Product datasheet for **RG238313**

### SynCAM (CADM1) (NM\_001301044) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SynCAM (CADM1) (NM_001301044) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SynCAM
Synonyms:	BL2; IGSF4; IGSF4A; Necl-2; NECL2; RA175; sglGSF; ST17; sTSLC-1; SYNCAM; synCAM1; TSLC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238313 representing NM_001301044. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGAGTGTAGTGCTGCCGAGCGGATCCAGTGTGCGGCGGCAGCGCGGCGGCGCCCTCCCGGG
CTCCGGCTCCGGCTTCTGCTGTTGCTCTTCCGCGCGGCACTGATCCCACAGGTGATGGGCAGAAT
CTGTTTACGAAAGACGTGACAGTATCGAGGGAGAGGTTGCGACCATCAGTTGCCAAGTCAATAAGAGT
GACGACTCTGTGATTCAGCTACTGAATCCCAACAGGCAGACCATTTATTTAGGGACTTCAGGCCTTTG
AAGGACAGCAGGTTTCAGTTGCTGAATTTTCTAGCAGTGAACCAAAGTATCATTGACAAACGTCTCA
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ATTGAAGTCAACTGCACTGCTATGGCCAGCAAGCCAGCCAGCACTATCAGGTGGTTCAAAGGGAACACA
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CTGCAGACCCAGCGGTATCTAGAAGTACAGTATAAGCCTCAAGTGCACATTCAGATGACTTATCCTCTA
CAAGGCTTAACCCGGGAAGGGGACGCGCTTGAGTTAACATGTGAAGCCATCGGGAAGCCCCAGCCTGTG
ATGGTAACTTGGGTGAGAGTCGATGATGAAATGCCTCAACACGCGTACTGTCTGGGCCAACCTGTTC
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CACTCGGATTATGCTGTATGTATACGATCCCCCACAACATATCCCTCCTCCCACAACAACCACCACC
ACCACCACCACCACCACCACCACCATCCTTACCATCATCACAGACACAACGGCGACGACAGAACCAGCA
GTTACAGATCCCGAGCAGGTGAAGAAGGCTCGATCAGGGCAGTGGATCATGCCGTGATCGGTGGCGTC
GTGGCGGTGGTGGTGTTCGCCATGCTGTGCTTGTCTCATATTCTGGGGCGCTATTTTCCAGACATAAA
GGTACATACTTCACTCATGAAGCCAAAGGAGCCGATGACGCAGCAGACGCAGACACAGCTATAATCAAT
GCAGAAGGAGGACAGAACAACCTCCGAAGAAAAGAAAGTACTTCATC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238313  
 Blue=ORF Red=Cloning site Green=Tag(s)

MASVVLPSGSQCAAAAAAAAAAPPGLRLRLLLLLFSAAAL IPTGDGQNLFTKDVTVIEGEVATISCVNKS  
 DDSVIQLLNPNRQTIYFRDFRPLKDSRFQLNFSSELKVSLTNVSI SDEGRYFCQLYTDPPQESYTTI  
 TVLVPPRNLMDIQKDTAVEGEEIEVNCTAMASKPATTIRWFKGNTELKKGSEVEEWSMYTVTSQLML  
 KVHKEDDGVPVICQVEHPAVTGNLQTRYLEVQYKQVHIQMTYPLQGL TREGDALELTCEAIGKPQPV  
 MVTWVRVDEMPQHAVLSGPNLFINNLNKT DNGTYRCEASNIVGKAHSDYMLVYVDPPTTIPPTTTTT  
 TTTTTTTTILTIITDTTATTEPAVHDSRAGEEGSIRAVDHA VIGGVVAVVVFAMLCLLIILGRYFARHK  
 GTYFTHAEKGAADADATAIINAEGGQNNSEEKEYFI  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001301044

**ORF Size:** 1359 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).

**RefSeq:** [NM\\_001301044.2](#)

RefSeq Size: 4357 bp  
 RefSeq ORF: 1362 bp

Locus ID: 23705

UniProt ID: [Q9BY67](#)

Cytogenetics: 11q23.3

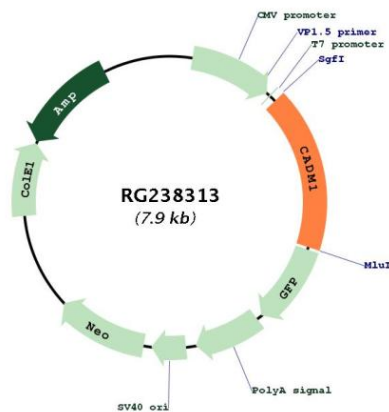
Protein Families: Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs)

MW: 50.1 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<sup>+</sup> 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]

### Product images:



Circular map for RG238313