

## Product datasheet for **RG224904**

### SynCAM (CADM1) (NM\_001098517) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SynCAM (CADM1) (NM_001098517) 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:	>RG224904 representing NM_001098517 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGAGTGTAGTGCTGCCGAGCGGATCCCAGTGTGCGGCGGCAGCGCGGGCGGGCCTCCCGGGC  
TCCGGCTCCGGCTTCTGCTGTTGCTCTTCTCCGCCGCGGCACTGATCCCCACAGGTGATGGGCAGAATCT  
GTTTACGAAAGACGTGACAGTATCGAGGGAGAGGTTGCGACCATCAGTTGCCAAGTCAATAAGAGTGAC  
GACTCTGTGATTGACTACTGAATCCCAACAGGCAGACCATTTATTTAGGGACTTCAGGCCTTTGAAGG  
ACAGCAGGTTTCAGTTGCTGAATTTTTCTAGCAGTGAAGTCAAAGTATCATTGACAAACGTCTCAATTTT  
TGATGAAGGAAGATACTTTTCCAGCTCTATACCGATCCCCACAGGAAAGTTACACCACCATCACAGTC  
CTGGTCCCACCACGTAATCTGATGATCGATATCCAGAAAGACACTGCGGTGGAAGGTGAGGAGATTGAAG  
TCAACTGCACTGCTATGGCCAGCAAGCCAGCCAGCACTATCAGGTGGTTCAAAGGGAACACAGAGCTAAA  
AGGCAAAATCGGAGGTGGAAGAGTGGTCAGACATGTACACTGTGACCAGTCAGCTGATGCTGAAGGTGCAC  
AAGGAGGACGATGGGGTCCCAGTCTGCCAGGTGGAGCACCTGCGGTCACTGGAACCTGCAGACCC  
AGCGGTATCTAGAAGTACAGTATAAGCCTCAAGTGCACATTCAGATGACTTATCTCTACAAGCCTTAAC  
CCGGGAAGGGGACGCGCTTGAGTTAACATGTGAAGCCATCGGGAAGCCCCAGCCTGTGATGGTAACCTGG  
GTGAGATCGATGAAATGCCTCAACACGCCGTACTGTCTGGGCCAACCTGTTCATCAATAACCTAA  
ACAAAACAGATAATGGTACATACCGCTGTGAAGCTTCAAACATAGTGGGAAAGCTCACTCGGATTATAT  
GCTGTATGTATACGATCCCGAGCAGGTGAAGAAGGCTCGATCAGGGCAGTGGATCATGCCGTGATCGGT  
GGCGTCGTGGCGGTGGTGGTGTTCGCCATGCTGTGCTTGTCTCATCTCTGGGGCCTATTTTCCAGAC  
ATAAAGGTACATACTTCACTCATGAAGCCAAAGGAGCCGATGACGCAGCAGACGCAGACACAGCTATAAT  
CAATGCAGAAGGAGGACAGAACAACCTCCGAAGAAAAGAAAGAGTACTTCATC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG224904 representing NM\_001098517  
Red=Cloning site Green=Tags(s)

```
MASVVLPSGSQCAAAAAAAPPGLRLRLLLLLFSAAALIPTGDGQNLFTKDVTVIEGEVATISCQVNKSD
DSVIQLLNPNRQTIYFRDFRPLKDSRFQLLNFSSELKVSLETNVSI SDEGRYFCQLYTDPPQESYTTITV
LVPPRNLMIQKDTAVEGEEIEVNCTAMASKPATTIRWFKGNTELK GKSEVEEWSDMYTVTSQMLMKVH
KEDDGVPVICQVEHPAVTGNLQ TQRYLEVQYKPVHIQMTYPLQGLTREGDALELTCEAIGKQPVMVTW
VRVDDEMPQHAVLSGPNLFINNLNKTDNGTYRCEASNIVGKAHSDYMLYVYDSRAGEEGSIRAVDHAVIG
GVVAVVVFAMLCLLIILGRYFARHKGYFTHEAKGADDAADADTAIINAEGGQNNSEEKKEYFI
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001098517

**ORF Size:** 1242 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\\_001098517.2](#)

**RefSeq Size:** 4240 bp

**RefSeq ORF:** 1245 bp

**Locus ID:** 23705

**UniProt ID:** [Q9BY67](#)

**Cytogenetics:** 11q23.3

**Protein Families:** Transmembrane

**Protein Pathways:** Cell adhesion molecules (CAMs)

**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]

