

Product datasheet for **MG225617**

Cadps2 (NM_153163) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cadps2 (NM_153163) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cadps2
Synonyms:	A230044C21Rik; Caps-2; Caps2; Cpd2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225617 representing NM_153163 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCGACCCGTCTTCCAGCGAGGAGGAGTCCGACGAGGGGCTGGAGGAGGAGAGCCGCGAGGTGTTGG
TGGCGCCGGGCGTCTCCAGCGAGCGCCCGGCCGCGGCTCGGGAAGGGCGCGGGACGCGCCGGGACG
CTCCGGTGGTGGCAGCGGCGGAGCGCCAGACCCGTGAGCCCGAGCCCTCGGTACTCAGCGAGGGG
CGAAATGAGCCGAGCTGCAGCTGGACGAGGAGCAGGAGCGCGCATCCGCTGCAGCTCTACGTCTTCG
TGTTGAGGTGCATCGCGTACCCATTCAACGCCAAGCAGCCACCGACATGGCCCGAGGCAGCAGAAGCT
TAACAAACAACAATTGCAGTTACTGAAAGAACGGTTCCAGGCCTTCTCAATGGAGAACTCAGATAGTA
GCAGACGAAGCCTTCTGCAATGCCGTCCGAGTACTATGAGGTGTTTCTAAAGAGTGACCGTGTGGCCA
GAATGGTCAAAGTGAGGATGCTCTGCTAATGATTTTCAGAGAGGTGTTAAGAAGAATAGAAAAACG
TGTCCGTAGCCTGCCAGAGATAGATGGCCTGAGCAAAGAGACAGTGTGAGCTCATGGATAGCCAAATAT
GACGCCATTTACAGGGGAGAAGAAGATTTGTGCAAACAGCCGAACAGGATGACCCCTAGTCCGTGTCTG
AGCTTATTCTGAGTAAGGAGCAGCTCTATGAAATGTTCCAGCAGATTCTGGGCATTAAGAAGCTGGAACA
CCAGCTACTTTATAACGCATGCCAGCTGGATAACGCTGATGAACAAGCAGCCAGATCAGAAGGAACTT
GATGGCCGCTGCAGTTGGCAGAGAAGATGGCAAAGGAGAGAAGATTTCCAGATTCATCTCGAAAGAAA
TGGAGAGTATGTACATTGAAGAGCTGCGAGCCTCCGTGAACCTGCTAATGGCCAATTTAGAAAGTCTTCC
AGTTTTCAAAGGTGGCCGGAATTTAAATTACAAAAATTAAGCGTTTCGAGAATCTGCGTTTTCTGGAC
CTGGGAGATGAGAACGAGATCCAGCTGTCCAAGTCGGATGTGGTGTGTCGTTACGTTAGAGATTGTCA
TCATGGAAGTGAAGGACTGAAATCTGTGGCTCCCAATCGAATCGTTTACTGCACAATGGAGGTGGAAGG
AGGAGAAAACTCCAGACAGACCAGGCTGAAGCATCAAGGCCACAATGGGGACCCAAGGAGATTCAAC
ACTACCCACCTCGCCTGTCGTCAAAGTGAAGCTCTTACAGAAAGCACGGGGTCTGGCCCTGGAAG
ACAAGGAACTGGCAGGGTGGTGTATACCAACTTCTAATAGCTCCAAGTCAGCAGAGTTACACCGAAT
GACAGTACCAAGAAGCAGTCAGGACTCGGACCTAAAGATCAAATTTGGCAGTGCAGATGGATAAACACGCA



[View online »](#)

CACATGAAGCATAGTGGGTACCTGTATGCCCTTGACAGAAGTTTGAAAAAGATGGAAAAAGCGTTACT
TTGTTCTCGTTACAGTTAGCCAGTACACCTTTGCTATGTGCAGCTATAGAGAAAAAGTCGGAACCACA
GGAATTAATGCAACTGGAAGGATACACAGTGGATTACACAGACCCCTACCCAGGCCTTCAGGGTGGTCAG
GTGTTCTTCAACGCTGTTAAAGAGGGAGATACTGTGATCTTTGCCAGTGTATGAACAGGACAGAATAT
TATGGGTACAAGCCATGTACAGGGCTACAGGCCAGTCTTACAACCAGTTCCTGCAGTCCAAAGCCAGAA
GCTGAATCCTAAAGGCGGAGCTCTCCATGCAGATGCTCAGCTTTATGCAGACCGTTTTTCAGAAACACGGG
ATGGATGAGTTTATTTCTGCGAGTCTTGCAAGCTTGACCATGCCTTCTTCCAGAAATTCAGAGAC
AGACTTTGGATCACAGACTGAATGATTCGTATTCTTGTGGGGTGGTTAGCCCTGGCCAAGTCTTTGT
GTTAGATGAGTACTGTGCCCGCTACGGAGTGAGAGGCTGTACAGGCATCTCTGCTACCTTACAGAAGT
ATGGAACATTCAGAAAACGGTGTGCTATTGACCCACCCTGCTCCATTACAGCTTTGCTTCTGTGCT
CTCACGTGCACGGCAACAGGCCTGATGGGATTGGAACGGTTTCAGTGGAAGAGAAAGAAAGATTTGAGGA
GATAAAAGACCGACTTTCTCGCTTTTAGAAAACCAGATCAGCCACTTCAGATACTGCTTCCCTTCGGA
CGACCTGAGGGTGCCTAAAAGCTACGCTCTCCTTACTTGAAAGGGTTTTAATGAAAGACATTGCCACTC
CTATCCCTGCGGAGGAGTGAAGAAAGTGGTCAGAAAATGTCTGGAGAAAGCTGCCTTGATCAATTACAC
TAGGCTCACAGAATATGCCAAAATAGAAGGCCCGCAGAAAAGGAAACAGAGACCATGAACCAGGCAACT
CCTGCCAGGAAGCTGGAAGAGGTTCTTCATCTTGCAAGCTCTGCATAGAAGTCTACAGCAAAATGAGG
AGCATCATGCTGAGGGAAGAGAGGCATTTGCTGGTGGCCTGACTTGTGGCCGAGCATGCAGAGAAGTT
TTGGGCTTTATTCACAGTAGACATGGATACTGCGCTGGAGGCCAACCTCAAGACTCCTGGGATAGCTTT
CCCCTTTCCAGCTGCTTAATAATTTCTCAGAAATGACACACTTTTGTGTAATGGAAAATTCACAAGC
ACTTGCAAGAAATCTTTGTGCCCTTGGTGTCCGCTACGTTGACCTGATGGAGTCTGCCATCGCCAGTC
CATTACAGAGGTTTTGAGCAGGAGACATGGCAGCCTGTCAAGAATATCGCCAACAGTCTTCCCAATGTA
GCTCTTCCAAAAGTTCCAAGTCTGCCTTAACTTTCCACAGATTCCTAGCTTTTCTACTCCTCCGTGGA
TGGCTTCTTTATATGAGTCCACCAATGGCTCAACAACCTCCGAGGATCTGTTCTGGAAGCTCGATGCGCT
GCAAAATGTTTCGTCTTTGATCTCCATTGGCCAGAACAAGGTTTTGCCACCCTTAGAGCAAGACTTAAA
CTAATGGCCAGTGATATGATAGAGGCGTGTGTCAAAAGAACAAGAACTGCGTTTCAACTCAAGCTACAAA
AGGCAACAAAACAACACTGACTTGCGCATCCCAGCTTCCGTGTGCACAATGTTAATGATTAGTTGATGC
TAAAAAGCAAAGCACCAGCTGTGTGCCCTGGATGGAGGACAAGAGCAACAGTACCATTCAAAAATAGAT
GATTTGATTGACAACACCGTGAAAGAAATCATTGCACTGCTGGTTTCAAAGTTTGTTCAGTGTGGAAG
GGGTGCTTTCGAAGTTGTCGAGGTATGACGAAGGCACTTCTTCTCATCCATCTGCTTCACTGTGAA
AGCAGCTGCAAAATATGTGGATGTCCTAAACCAGGAATGGATCTGGCAGACACCTACATTATGTTTGT
CGCAAAACCAGGATATTCTTCAGAAAAAGTCAATGAAGAGATGTACATAGAAAAGTTGTTTGATCAAT
GGTACAGCAATCCATGAAAGTCATTTGTGTGGCTGGCTGACAGACTAGACCTCCAGCTTCATATTTA
CCAAGTGAAGACGCTCATCAAGATTGTGAAGAAAACCTATAGGGATTTCCGATTGCAGGGTGTGTTGGAG
GGGACGCTGAACAGTAAGACATATGATACTCTGCACAGACGTCTAACTGTAGAGGAGGCCACAGCCTCTG
TCTCAGAAGGCGGAGGACTTCAGGGCATTACCATGAAGGACAGTGTAGGAGGAAGAAGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG225617 representing NM_153163
 Red=Cloning site Green=Tags(s)

MLDPSSEEESEGLEEEESREVLVAPGVSQRAPPAAREGRRDAPGRSGGGSGGGAARPVSPSPSVLSEG
 RNEPELQLDEEQERRIRLQLYVFVVRCAIYPFNAKOPTMARRQQLNKQQLQLLKERFQAFNGETQIV
 ADEAFCAVRSYVEVFLKSDRVARMVQSGGCSANDFREVFKNIEKRVRSLEIDGLSKETVLSWIAKY
 DAIYRGEEDLCKQPNRMTLSAVSELILSKEQLYEMFQQILGIKLEHQLLYNACQLDNAEQAAQIRREL
 DGRLQLAEKMAKERRFPRFISKEMESMYIEELRASVNLMLANLESLPVSKGGPEFKLQKLKRSQNSAFLD
 LGDENEIQLSKSDVVLSTFLEIVIMEVQGLKSVAPNRIYVYCTMEVEGGEKLQTDQAEASRPQWGTQGDFN
 TTHPRPVVKVLFTESTGLVALEDKELGRVVL YPTSNSKSAELHRMTVPKNSQSDLKIKLAVRMDKPA
 HMKHSGYLALGQKVWRWKRYFVLVQVSQYTFAMCSYREKKSEPQELMLEGYTVDYDTPHPGLGGGQ
 VFFNAVKEGDTVIFASDDEQDRILWVQAMYRATGQSYKVPVAVQSQKLNPKGGALHADAQLYADRFQKHG
 MDEFISASPCKLDHAFLFRILQRQTLDHRLNDSYSLGWFSFGQVFLDEYCARYGVRGCHRHLCYLTEL
 MEHSENGAVIDPTLLHYSFAFCASHVHGNRPDGGIGTVSVEEKERFEEIKDRLSSLLENQISHFRYCFPG
 RPEGALKATLSLLERVLKDIATPIPAEEVKVVRKCLEKAALINYTRLTEYAKIEGPAEKETETMNQAT
 PARKLEEVLHLAELCIEVLQQNEEHHAEGREAFAWWPDLLAEHAEKFWALFTVDMDTALEAQPQDSWDSF
 PLFQLLNFLRNDTLLCNGKFHKHLQEIFVPLVVRVVDLMEASIAQSIHRGFEQETWQPVKNIANSPLNV
 ALPKVPSLPLNLPQIPSFSTPPWMASTYESTNGSTTSEDLFWKLDALQMFVFDLHWPEQEFAMHLEQRK
 LMASDMIACVKRTRTAFELKLQKANKTTDLRIPASVCTMFNVLDVAKKQSTKLCALDGGQEQYHSHKID
 DLIDNTVKEIIALLVSKFVSVLEGLVSKLSRYDEGTFSSILSFTVKAAYVDPKPGMDLADTYIMFV
 RQNQDILREKVNEMYIEKLFQWYSNSMKVICVWLADRLDLQLHIYQLKTLIKIVKKT YRDFRLQGVLE
 GTLNSKTYDTHRRLTVEEATASVSEGGGLQGITMKDSDEEEEG

TRTRPLE - GFP Tag - V

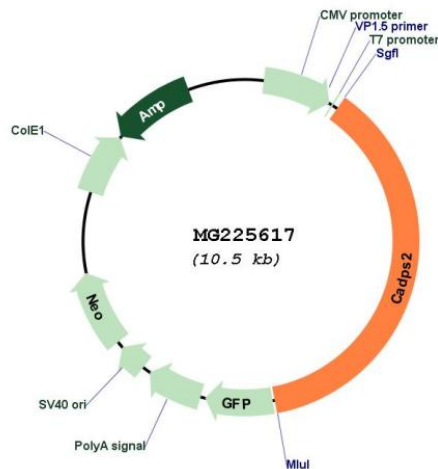
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_153163

ORF Size: 3912 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_153163.4](#), [NP_694803.3](#)

RefSeq Size: 4783 bp

RefSeq ORF: 3915 bp

Locus ID: 320405

Cytogenetics: 6 A3.1

Gene Summary:

Calcium-binding protein involved in exocytosis of vesicles filled with neurotransmitters and neuropeptides. Probably acts upstream of fusion in the biogenesis or maintenance of mature secretory vesicles. Regulates neurotrophin release from granule cells leading to regulate cell differentiation and survival during cerebellar development. May specifically mediate the Ca²⁺-dependent exocytosis of large dense-core vesicles (DCVs) and other dense-core vesicles.[UniProtKB/Swiss-Prot Function]