

## Product datasheet for **MG219052**

### **Pde2a (NM\_001143849) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pde2a (NM_001143849) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pde2a
Synonyms:	CGS-PDE; cGSPDE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG219052 representing NM\_001143849  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCCTGGTGTGACACCACATCCTCATCGCTGTTGTCCAATTCCTCAGCGGGGCCAGCAGGTCTTCC  
 TCAAGCCGGACGAGCCGCGCCGAGCCATGCGCCGACAGCCTGCAGGATGCTTTGCTGAGCCTAGGCGC  
 CGTTATCGACATTGCTGGCCTGCGACAGGCTGCCAGGGATGCCCTCTCAGCCGTGCTCCCAAAGTGGAG  
 ACTGTCTACACCTACCTGCTAGATGGGGAGTCCAGACTGGTGTGTGAGGACCCCCCTCATGAGCTGCCAC  
 AGGAAGGAAAAATTCGAGAAGCTGTGATCTCTCAGAAGCGGTGAGTTGCAATGGGCTGGGACCTTCGGA  
 CCTACTGGGAAAGCCCTTGGCCAGGCTGGTGGCTCCACTGGCTCCTGACATGCAAGTGTGGTGCATACCC  
 CTGCTGGACAAGGAGACTGGAAGTGTGGCAGTGTGATCTTGGTGCAGTGTGGCCAGCTGAGTGACAGTG  
 AGGAACAGAGCTTGCAGGTGGTAGAGAAGCAGCTCTGGTAGCCCTCGGAGGGTGCAGGCCCTGCAGCA  
 GCGCAGGCTGAAGCTGTTCAGAACACGTGAGTGGATGCCTCTGAAGATCAAAGGATGAGAAGGGGTAC  
 ACCGACCATGACCGAAAGATCCTGCAACTGTGTGGGAACTCTTTGACTTGGATGCTACTTCTCTGCAGC  
 TCAAAGTCCTTCAATATCTGCAGCAGGAGACACAGGCCACTCACTGCTGCCTCCTGCTGGTGTGGAGGA  
 CAATCTACAGCTTTCCTGCAAGGTCAATGGAGACAAAGTCTGGGAGAAGAGGTGAGCTTTCATTGACC  
 ATGGGACGCTGCGGGCAGGTGGTGAAGACAAGCAGTGTATCCAGTTGAAGGACCTAACCTCTGACGATG  
 TGCAACAGCTGCAAAACATGTTGGGTTGTGAGCTGCAGGCTATGCTGTGTGCTCCCTGTATCAGCCGAGC  
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 GAACACGTGATCAACTGCTTCCACTACACAGGCAGGCTGCTCACCAGCACCTTGGCCTTCCAGAAGG  
 AGCAGAAGCTCAAGTGTGAGTCCAGGCTCTTCTCCAAGTGGCAAAGAACCTTTCACCCACCTGGATGA  
 TGCTCTGTCTGCTACAGGAGATCATCACGGAAGCCAGAAACCTCAGCAACGCAGAGATCTGCTGGTGT  
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 CTCTGCTTCCCTATCAAGAACGAGAACCAGGAGGTCAATGGTGTGGCTGAGCTAGTGAACAAGATCAATG  
 GGCCATGGTTCAGCAAGTTTGTAGGACCTGGCCACAGCCTTCTCCATCTACTGTGGCATCAGCATCGC  
 CCACTCTCTCTATACAAAAAGGTGAATGAAGCCCAATACCGCAGCCACCTGGCCATGAGATGATGATG  
 TATCATATGAAGTCTCTGATGATGAATACACCAAGCTTCTCCAGATGGCATCCAACCTGTGGCCGCA  
 TTGACTCCAACCTTGGCAACTTTACCTACACGCTCGGTCTCTGCCTGAGGACGACACTTCTATGGCCAT  
 CCTGAGCATGCTGCAAGACATGAACTTCAATAACTACAAAATTGACTGCCAACTCTGGCCCGATTCT  
 TGCCATGATGGTGAAGAAAGGCTACCGGGATCCACCCTACCACAACCTGGATGCACGCTTCTCTGTCTCTC  
 ATTTTTGCTACCTGCTCTACAAGAACTGGAGCTCTCAAACCTCGAGGACATCGAGATCTTTGCATT  
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 GTTCTTCTCCAGGGAGACTTGGAGAAGGCCATGGGCAACCGACCGATGGAGATGATGGACCGTGAAGA  
 GCCTACATCCCTGAGCTTCAAGTCAAGCTTTATGGAGCACATTGCCATGCCTATCTACAAGCTTTTACAAG  
 ACCTGTTCCCAAGGCGGACAGCTGTATGAACGTGTGGCCTCCAACCGTGAAGTGGACCTGGACCAAGGTGTC  
 CCACAAGTTCACCATCCGAGGCTCCCCAGTAACAACCTCGCTGGATTTCTGGACGAGGAATACGAGGTC  
 CCCGATTTGGACGGCACCAGAGCTCTGTCAATGGCTGCTGCAGCCTCGAGGGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - **GTTTAA**

**Protein Sequence:** >MG219052 representing NM\_001143849  
 Red=Cloning site Green=Tags(s)

MVLVLHHILIAVVQFLRRGQQVFLKPDPEPPPQCADSLQDALLSLGAVIDIAGLRQAARDALSAVLPKVE  
 TVYTYLLDGESRLVCEDPPHELPEQEKIREAVISQKRLSCNGLGPSDLLGKPLARLVAPLAPDMQVLVIP  
 LLDKETGSVAAVILVHCQQLSDSEEQSLQVVEKHALVALRRVQALQRRPEAVQNTSVDASEDQKDEKGY  
 TDHDRKILQLCGELFDLDATSLQLKVLQYLQETQATHCCLLLVSEDNLQLSCKVIGDKVLGEEVDFPLT  
 MGRLGQVVEDKQCIQLKDLTSDDVQQLQNMLGCELQAMLQVPIVSRATDQVVALACAFNKLGGDFDDED  
 EHVIQHCFHYTGTVL TSTLAFQKEQKLKCECQALLQVAKNLFTHLDDVSVLLQEIITEARNLSNAEICSV  
 FLLDQNELVAKVFDGGVVDDESYEIRIPADQGIAGHVATTGQILNIPDAYAHLPLFYRGVDDSTGFRTRNI  
 LCFPIKNENQEVIGVAELVNKINGPWFSKFDEDLATAFSIYCGISIAHSLLYKKVNEAQYRSHLANEMMM  
 YHMKVSDDEYTKLLHDGIQPVAAIDSNFANFTYTPRSLPEDDTSMAILSMLQDMNF INNYKIDCPTLARF  
 CLMVKKGYRPPYHNWMAFVSHFCYLLYKNELESNYLEDIEIFALFISCMCHDLDRGTNNSFQVASK  
 SVLAALYSSEGSVMERHHAQAIAILNTHGCNIFDHF SRKDYQRM LDMRDIILATDLAHLRIFKDLQK  
 MAEVGYDRNNRQHRLLLCCLMTSCDLSDQTKGWKTTRKIAELIYKEFFSQGDLEKAMGNRPMEMMDREK  
 AYIPELQISFMEHIAMPYKLLQDLFPKAAELYERVASNREHWTKVSHKFTIRGLPSNNSLDFLDEEYEV  
 PDLDGTRAPVNGCCSLEG

TRTRPLE - GFP Tag - V

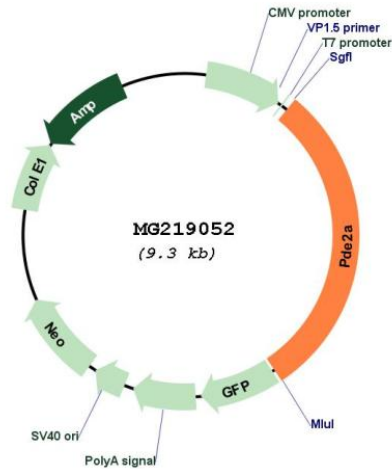
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



Plasmid Map:



ACCN: NM\_001143849

ORF Size: 2784 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\\_001143849.2](#), [NP\\_001137321.1](#)

RefSeq Size: 4067 bp

RefSeq ORF: 2787 bp

Locus ID: 207728

UniProt ID: [Q922S4](#)

Cytogenetics: 7 E2

**Gene Summary:**

Cyclic nucleotide phosphodiesterase with a dual-specificity for the second messengers cAMP and cGMP, which are key regulators of many important physiological processes.  
[UniProtKB/Swiss-Prot Function]