

Product datasheet for **RG205292**

PDE1A (NM_005019) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE1A (NM_005019) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDE1A
Synonyms:	CAM-PDE-1A; CAM-PDE 1A; HCAM-1; HCAM1; HSPDE1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG205292 representing NM_005019
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGTCTAGTGCCACAGAGATTGAAGAATTGAAAACACCCTTTAAGTATCTTACAGGAGAACAGA
 CTGAAAAAATGTGGCAGCGCCTGAAAGGAATACTAAGATGCTTGGTGAAGCAGCTGGAAAGAGGTGATGT
 TAACGTCGTCGACTTAAAGAAGAATATTGAATATGCGGCATCTGTGCTGGAAGCAGTTTATATCGATGAA
 ACAAGAAGACTTCTGGATACTGAAGATGAGCTCAGTGACATTCAGACTGACTCAGTCCCCTCTGAAGTCC
 GGGACTGGTTGGCTTCTACCTTTACACGGAAAAATGGGGATGACAAAAAGAAACCTGAGGAAAAACAAA
 ATTTCCGGAGCATTGTGCATGCTGTTCAAGCTGGAATTTTGTGGAAGAATGTACCGAAAAACATATCAT
 ATGTTTGGTTTGGCATATCCAGCAGCTGTCATCGTAACATTAAGGATGTTGATAAATGGTCTTTTCGATG
 TATTTGCCCTAAATGAAGCAAGTGGAGAGCATAGTCTGAAGTTTATGATTTATGAACTGTTTACCAGATA
 TGATCTTATCAACCGTTTCAAGATTCCTGTTTCTTGCCATACCTTTGCAGAAGCTTTAGAAGTTGGT
 TACAGCAAGTACAAAAATCCATATCACAAATTTGATTCATGCAGCTGATGTCACTCAAACCTGTGCATTACA
 TAATGCTTCATACAGGTATCATGCACTGGCTCACTGAACTGGAAATTTAGCAATGGTCTTTGCTGCTGC
 CATTATGATTATGAGCATACAGGGACAACAACTTTTACATTACAGCAAGGTGAGATGTTGCCATT
 TTGTATAATGATCGCTCTGTCCTTGAGAATCACCACGTGAGTGCAGCTTATCGACTTATGCAAGAAGAAG
 AAATGAATATCTTGATAAATTTATCAAAGATGACTGGAGGGATCTTCGGAACCTAGTGATTGAAATGGT
 TTTATCTACAGACATGTCAGGTCCTCCAGCAAATAAAAATAAGAAACAGTTTGCAGCAGCCTGAA
 GGGATTGACAGAGCCAAAACCATGTCCTGATTCTCCAGCAGCAGACATCAGCCACCCAGCCAAATCCT
 GGAAGCTGCATTATCGGTGGACCATGGCCCTAATGGAGGAGTTTTCTGCAGGGAGATAAAGAAGCTGA
 ATTAGGGCTTCCATTTTCCCACTTTGTGATCGGAAGTCAACCATGGTGGCCAGTCACAAATAGTTTTC
 ATCGATTTTATAGTAGAGCCAACATTTTCTTCTGACAGACTCAACAGAGAAAATTGTTATTCCTCTTA
 TAGAGGAAGCCTCAAAGCCGAACTTCTTCTATGTGGCAAGCAGCTCAACCACCATTGTGGGTTTACA
 CATTGCTGATGACTAAGACGATCAAATACAAAAGGCTCCATGAGTGTGGTCTTATCCCCAGACTAC
 TCCCTTGACGAGTGGACCTGAAGAGTTTCAAGAAACCTGGTGGACATCATTACAGCAGAAACAAAGAGA
 GGTGGAAGAGTTAGCTGCACAAGGTGAATCTGATCTTCATAAGAAGCTCAGAAGACTTAGTAAATGCTGA
 AGAAAAACATGATGAGACACATTCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG205292 representing NM_005019
 Red=Cloning site Green=Tags(s)

MGSSATEIEELENTTFKYL TGEQTEKMWQRLKGI LRCLVKQLERGDVNVVDLKKNIEYAASVLEAVYIDE
 TRRLLDTEDELSDIQTDSVPSEVRDWLASTFTRKMGMTKKKPEEKPKFRSIVHAVQAGIFVERMYRKTYH
 MVGLAYPAAVIVTLKDVDKWSFDV FALNEASGEHSLKFMIEYELFTRYDLINRFKIPVSCLITFAEALVGV
 YSKYKNPYHNL IHAADVTQTVHYIMLHTGIMHWL TELEILAMVFAAAIHDYEHTGTTNNFHIQTRSDVAI
 LYNDRSVLENHHVSAAYRLMQEEEMNIL INL SKDDWRDLRNLVIEMVLSTDMSGHFQQIKNIRNSLQQPE
 GIDRAKTM SLILHAADISHPAKSWKLHYRWTMALMEEFFLQGDKEAELGLPFSPLCDRKSTMVAQSQIGF
 IDFIVEPTFSLLDSTEKIVIPLIEEASKAETSSYVASSSTTIVGLHIADALRRSNTKGSMSDGSYSPDY
 SLAAVDLKSFKNNLVDIIQONKERWKELAAQGESDLHKNSEDLVNAEEKHDETHS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_005019

ORF Size: 1635 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_005019.5](#)

RefSeq Size: 2414 bp

RefSeq ORF: 1638 bp

Locus ID: 5136

UniProt ID: [P54750](#)

Cytogenetics: 2q32.1

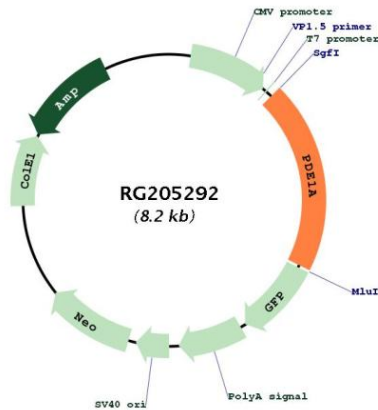
Domains: PDEase

Protein Families: Druggable Genome

Protein Pathways: Calcium signaling pathway, Progesterone-mediated oocyte maturation, Purine metabolism, Taste transduction

Gene Summary: Cyclic nucleotide phosphodiesterases (PDEs) play a role in signal transduction by regulating intracellular cyclic nucleotide concentrations through hydrolysis of cAMP and/or cGMP to their respective nucleoside 5-prime monophosphates. Members of the PDE1 family, such as PDE1A, are Ca(2+)/calmodulin (see CALM1; MIM 114180)-dependent PDEs (CaM-PDEs) that are activated by calmodulin in the presence of Ca(2+) (Michibata et al., 2001 [PubMed 11342109]; Fidock et al., 2002 [PubMed 11747989]).[supplied by OMIM, Oct 2009]

Product images:



Circular map for RG205292