

## Product datasheet for **RC234298**

### **PDE1A (NM\_001258314) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE1A (NM_001258314) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE1A
Synonyms:	CAM-PDE-1A; CAM-PDE 1A; HCAM-1; HCAM1; HSPDE1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC234298 representing NM\_001258314  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGCAAAAAGATAAACAACTATTTTGCCTTAAATTTCTAGTTCAGTGTTTAGGGGTAATCAAAC  
 CATCCAAATGTCAGATCAGAAAAGAAAGTTAAAAATCATATAGAAAGACTTCTGGATACTGAAGATGAGCT  
 CAGTGACATTCAGACTGACTCAGTCCCCTCTGAAGTCCGGGACTGGTTGGCTTCTACCTTTACACGGAAA  
 ATGGGGATGACAAAAAGAAACCTGAGGAAAAACCAAATTTCCGAGCATTGTGCATGCTGTTCAAGCTG  
 GAATTTTGTGGAAAGAATGTACCGAAAAACATATCATATGGTTGGTTTGGCATATCCAGCAGCTGCAT  
 CGTAACATTAAGGATGTTGATAAATGGTCTTTCGATGTATTTGCCCTAAATGAAGCAAGTGAGAGCAT  
 AGTCTGAAGTTTATGATTTAAGACTGTTACCAGATATGATCTTATCAACCGTTTCAAGATTCCTGTTT  
 CTTGCCTAATCACCTTTCGAGAAGCTTTAGAAGTTGGTTACAGCAAGTACAAAAATCCATATCACAATTT  
 GATTCATGCAGCTGATGCACTCAAAGTGTGCATTACATAATGCTTCATACAGGTATCATGCACTGGCTC  
 ACTGAACTGGAATTTTAGCAATGGTCTTGTCTGCTGCCATTCATGATTATGAGCATACAGGGACAACAA  
 ACAACTTTCACATTCAGACAAGGTCAGATGTTGCCATTTGTATAATGATCGCTCTGTCTTGAGATCA  
 CCACGTGAGTGCAGCTTATCGACTTATGCAAGAAGAAGAAATGAATATCTTGATAAATTTATCCAAAGAT  
 GACTGGAGGGATCTTCGGAACCTAGTGATTGAAATGGTTTTATCTACAGACATGCAGGTCACCTCCAGC  
 AAATTAATAATAAGAAACAGTTTGCAGCAGCCTGAAGGGATTGACAGAGCCAAAACCATGTCCCTGAT  
 TCTCCACGCAGCAGACATCAGCCACCCAGCCAAATCCTGGAAGCTGCATTATCGTGAGCCATGGCCCTA  
 ATGGAGGAGTTTTCTGCAGGGAGATAAAGAAGCTGAATTAGGGCTTCCATTTCCCACTTTGTGATC  
 GGAAGTCAACCATGGTGGCCAGTCACAAATAGGTTTCATCGATTCATAGTAGAGCCAACTTTCTCT  
 TCTGACAGACTCAACAGAGAAAATTGTTATTCCTTATAGAGGAAGCCTCAAAAGCCGAAACTTCTCC  
 TATGTGGCAAGCAGCTCAACCACCATGTTGGGTTACACATTGCTGATGCACTAAGACGATCAAATACAA  
 AAGGCTCCATGAGTGATGGGCTCTATCCCCAGACTACTCCCTTGCAGCAGTGGACCTGAAGAGTTTCAA  
 GAACAACCTGGTGGACATCATTACAGACAACAAAGAGAGGTGAAAGAGTTAGCTGCACAAGAAGCAAGA  
 ACCAGTTCACAGAAGTGTGAGTTTATTCATCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC234298 representing NM\_001258314  
 Red=Cloning site Green=Tags(s)

MGKKINKLFCFNFLVQCFRGSKPSKQIRKKVKNHIERLLDTEDELSDIQTDSVPSEVRDWLASTFTRK  
 MGMTKKKPEEKPKFRSIVHAVQAGIFVERMYRKYHVMGLAYPAAVIVTLKDVKWSFDVFNALNEASGEH  
 SLKFMIYELFTRYDLINRFKIPVSLITFAEALVGYSKYKNPYHNLIIAADVTQTVHYIMLHTGIMHWL  
 TELEILAMVFAAAIHDYEHTGTTNFIHQTRSDVAILYNDRSVLENHHVSAAYRLMQEEEMNILINLSKD  
 DWRDLRNLVIEMVLSTDMSGHFQQIKNIRNSLQQPEGIDRAKTMSLILHAADISHPAKSWKLHYRWTMAL  
 MEEFFLQGDKEAELGLPFSPLCDRSTMAVQSQIGFIDFIVEPTFSLLDSTEKI VIPLIEEASKAETSS  
 YVASSSTTIVGLHIADALRRSNTKGSMSDGSYSPDYSLAAVDLKSFKNLVDIIQQNKERWKELAAQEAR  
 TSSQKCEFIHQ

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_001258314

ORF Size: 1503 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\\_001258314.1](#), [NP\\_001245243.1](#)

RefSeq Size: 2015 bp

RefSeq ORF: 1506 bp

Locus ID: 5136

UniProt ID: [P54750](#)

Cytogenetics: 2q32.1

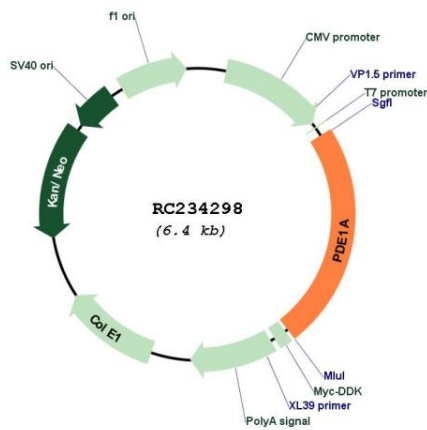
**Protein Families:** Druggable Genome

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

**MW:** 57.9 kDa

**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 RC234298