

Product datasheet for **RC223864**

PDE1A (NM_001003683) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE1A (NM_001003683) 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:

>RC223864 representing NM_001003683
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGTCTAGTGCCACAGAGATTGAAGAATTGAAAAACCACTTTAAGTATCTTACAGGAGAACAGA
 CTGAAAAAATGTGGCAGCGCCTGAAAGGAATACTAAGATGCTTGGTGAAGCAGCTGGAAAGAGGTGATGT
 TAACGTCGTCGACTTAAAGAAGAATATTGAATATGCGGCATCTGTGCTGGAAGCAGTTTATATCGATGAA
 ACAAGAAGACTTCTGGATACTGAAGATGAGCTCAGTGACATTCAGACTGACTCAGTCCCCTCTGAAGTCC
 GGGACTGGTTGGCTTCTACCTTTACACGGAAAAATGGGGATGACAAAAAGAAACCTGAGGAAAAACAAA
 ATTTCCGAGCATTGTGCATGCTGTTCAAGCTGGAATTTTGTGGAAAGAATGTACCGAAAAACATATCAT
 ATGTTGGTTTGGCATATCCAGCAGCTGTCATCGTAACATTAAGGATGTTGATAAATGGCTTTTCGATG
 TATTTGCCCTAAATGAAGCAAGTGGAGAGCATAGTCTGAAGTTTATGATTTATGAACTGTTTACCAGATA
 TGATCTTATCAACCGTTTCAAGATTCCTGTTTCTGCCTAATCACCTTTCGAGAAGCTTTAGAAGTTGGT
 TACAGCAAGTACAAAAATCCATATCACAAATTTGATTCATGCAGCTGATGTCACTCAAACCTGTGCATTACA
 TAATGCTTCATACAGGTATCATGCACTGGCTCACTGAACTGGAAATTTAGCAATGGTCTTTGCTGCTGC
 CATTATGATTATGAGCATACAGGGACAACAAACAACTTTCACATTCAGACAAGGTGAGATGTTGCCATT
 TTGTATAATGATCGCTCTGTCCTTGAGAATCACCACGTGAGTGCAGCTTATCGACTTATGCAAGAAGAAG
 AAATGAATATCTTGATAAATTTATCAAAGATGACTGGAGGGATCTTCGGAACCTAGTGATTGAAATGGT
 TTTATCTACAGACATGTCAGGTCCTCCAGCAAATTAATAAGAAACAGTTTGCAGCAGCCTGAA
 GGGATTGACAGAGCCAAAACCATGTCCTGATTCCTCCAGCAGCAGACATCAGCCACCCAGCCAAATCCT
 GGAAGCTGCATTATCGGTGGACCATGGCCCTAATGGAGGAGTTTTCTGCAGGGAGATAAAGAAGCTGA
 ATTAGGGCTTCCATTTTCCCACTTTGTGATCGGAAGTCAACCATGGTGGCCAGTCACAAATAGGTTTC
 ATCGATTTTCATAGTAGAGCCAACATTTTCTCTTCTGACAGACTCAACAGAGAAAATTGTTATTCCTCTTA
 TAGAGGAAGCCTCAAAGCCGAACTTCTCTCTATGTGGCAAGCAGCTCAACCACCATTGTGGGTTTACA
 CATTGCTGATGACTAAGACGATCAAATACAAAAGGCTCCATGAGTGTGGGCTCATTCCCCAGACTAC
 TCCCTTGACGAGTGGACCTGAAGAGTTTCAAGAAACACCTGGTGGACATCATTGACAGAAACAAAGAGA
 GGTGAAAGAGTTAGCTGCACAAGAAGCAAGAACCAGTTCACAGAAGTGTGAGTTTATTCATCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223864 representing NM_001003683
 Red=Cloning site Green=Tags(s)

MGSSATEIEELENTTFKYL TGEQTEKMWQRLKGILRCLVKQLERGDVNVVDLKKNIEYAASVLEAVYIDE
 TRRLLDTEDELSDIQTDSVPSEVRDWLASTFTRKMGMTKKKPEEKPKFRSIVHAVQAGIFVERMYRKTYH
 MVGLAYPAAVIVTLKDVKWDFVDFALNEASGEHSLKFMIEYELFTRYDLINRFKIPVSCLITFAEALVGV
 YSKYKNPYHNL IHAADVTQTVHYIMLHTGIMHWL TELEILAMVFAAAIHDYEHTGTTNNFHIQTRSDVAI
 LYNDRSVLENHHVSAAYRLMQEEEMNIL INLSKDDWRDLRNLVIEMVLSTDMSGHFQQIKNIRNSLQQPE
 GIDRAKTM SLILHAADISHPAKSWKLHYRWTMALMEEFFLQGDKEAELGLPFSPLCDRKSTMVAQSQIGF
 IDFIVEPTFSLLDSTEKIVIPLIEEASKAETSSYVASSSTTIVGLHIADALRRSNTKGSMSDGSYSPDY
 SLAAVDLKSFKNNLVDIIQONKERWKELAAQEARTSSQKCEFIHQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8066_a06.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001003683

ORF Size: 1605 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

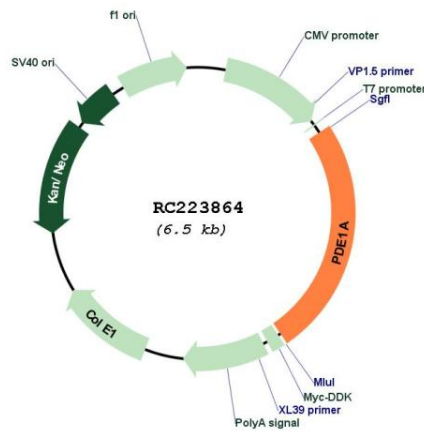
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_001003683.2](#), [NP_001003683.1](#)

RefSeq Size:	2009 bp
RefSeq ORF:	1608 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:	61.1 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 RC223864