

## Product datasheet for **RC205292**

### **PDE1A (NM\_005019) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE1A (NM_005019) 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)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC205292 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGTCTAGTGCCACAGAGATTGAAGAATTGAAAACACCCTTTAAGTATCTTACAGGAGAACAGA  
 CTGAAAAAATGTGGCAGCGCCTGAAAGGAATACTAAGATGCTTGGTGAAGCAGCTGGAAAGAGGTGATGT  
 TAACGTCGTCGACTTAAAGAAGAATATTGAATATGCGGCATCTGTGCTGGAAGCAGTTTATATCGATGAA  
 ACAAGAAGACTTCTGGATACTGAAGATGAGCTCAGTGACATTCAGACTGACTCAGTCCCCTCTGAAGTCC  
 GGGACTGGTTGGCTTCTACCTTTACACGGAAAATGGGGATGACAAAAAGAAACCTGAGGAAAAACCAAA  
 ATTTCCGAGCATTGTGCATGCTGTTCAAGCTGGAATTTTGTGGAAAGAATGTACCGAAAAACATATCAT  
 ATGTTTGGTTTGGCATATCCAGCAGCTGTCATCGTAACATTAAGGATGTTGATAAATGGTCTTTCGATG  
 TATTTGCCCTAAATGAAGCAAGTGGAGAGCATAGTCTGAAGTTTATGATTTATGAACTGTTTACCAGATA  
 TGATCTTATCAACCGTTTCAAGATTCCTGTTTCTGCCTAATCACCTTTCGAGAAGCTTTAGAAGTTGGT  
 TACAGCAAGTACAAAAATCCATATCACAAATTTGATTCATGCAGCTGATGTCACTCAAACCTGTGCATTACA  
 TAATGCTTCATACAGGTATCATGCACTGGCTCACTGAACTGGAAATTTAGCAATGGTCTTGTGCTGCTG  
 CATTATGATTATGAGCATACAGGGACAACAAACAACTTTCACATTCAGACAAGGTGAGATGTTGCCATT  
 TTGTATAATGATCGCTCTGCTCTGAGAATCACCACGTGAGTGCAGCTTATCGACTTATGCAAGAAGAAG  
 AAATGAATATCTTGATAAATTTATCAAAGATGACTGGAGGGATCTTCGGAACCTAGTGATTGAAATGGT  
 TTTATCTACAGACATGTCAGGTCACCTCCAGCAAATTAATAAGAAACAGTTTGCAGCAGCCTGAA  
 GGGATTGACAGAGCCAAAACCATGTCCTGATTCTCCACGCAGCAGACATCAGCCACCCAGCCAAATCCT  
 GGAAGCTGCATTATCGGTGGACCATGGCCCTAATGGAGGAGTTTTCTGCAGGGAGATAAAGAAGCTGA  
 ATTAGGGCTTCCATTTTCCCACTTTGTGATCGGAAGTCAACCATGGTGGCCAGTCAAAATAGGTTC  
 ATCGATTTTATAGTAGAGCCAACATTTTCTCTTCTGACAGACTCAACAGAGAAAATTGTTATTCCTCTTA  
 TAGAGGAAGCCTCAAAGCCGAACTTCTCTCTATGTGGCAAGCAGCTCAACCACCATTGTGGGTTACA  
 CATTGCTGATGACTAAGACGATCAAATACAAAAGGCTCCATGAGTGTGGTCTTATCCCCAGACTAC  
 TCCCTTGACGAGTGGACCTGAAGAGTTTCAAGAAACACCTGGTGGACATCATTGACGAGAAACAAAGAGA  
 GGTGAAAAGAGTTAGCTGCACAAGGTGAATCTGATCTTCATAAGAACTCAGAAGACTTAGTAAATGCTGA  
 AGAAAAACATGATGAGACACATTCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205292 protein sequence  
 Red=Cloning site Green=Tags(s)

MGSSATEIEELENTHFKYLTGEQTEKMWQRLKGI LRCLVKQLERGDVNVVDLKKNIEYAASVLEAVYIDE  
 TRRLLDTEDELSDIQTDSVPSEVRDWLASTFTRKMGMTKKKPEEKPKFRSIVHAVQAGIFVERMYRKYH  
 MVGLAYPAAVIVTLKDVKWSFDVVFALNEASGEHSLKFMIEYELFTRYDLINRFKIPVSCLITFAEALVGV  
 YSKYKNPYHNL IHAADVTQTVHYIMLHTGIMHWL TELEILAMVFAAAIHDYEHTGTTNNFHIQTRSDVAI  
 LYNDRSVLENHHVSAAYRLMQEEEMNIL INL SKDDWRDLRNLVIEMVLSTDMSGHFQQIKNIRNSLQQPE  
 GIDRAKMSLILHAADISHPAKSWKLHYRWTMALMEEFFLQGDKEAELGLPFSPLCDRKSTMVAQSQIGF  
 IDFIVEPTFSLLDSTEKIVIPLIEEASKAETSSYVASSSTTIVGLHIADALRRSNTKGSMSDGSYSPDY  
 SLAAVDLKSFKNNLVDIIQQNKERWKELAAQGESDLHKNSDLVNAEEKHDETHS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6196\\_a10.zip](https://cdn.origene.com/chromatograms/mk6196_a10.zip)

**Restriction Sites:**

Sgfl-MluI

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: 4918 bp

RefSeq ORF: 1638 bp

Locus ID: 5136

UniProt ID: [P54750](#)

**Cytogenetics:** 2q32.1

**Domains:** PDEase

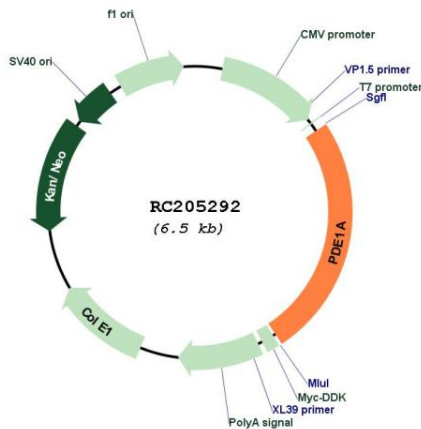
**Protein Families:** Druggable Genome

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

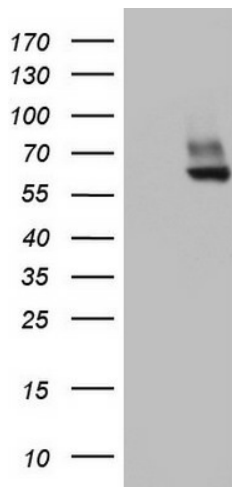
**MW:** 62.3 kDa

**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]

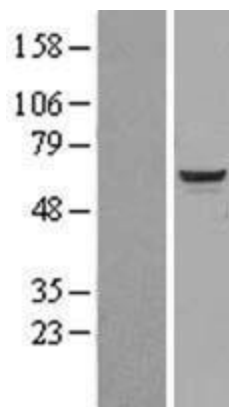
**Product images:**



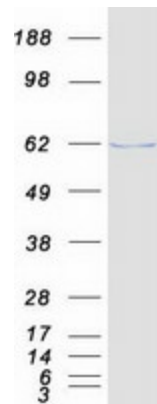
Circular map for RC205292



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PDE1A (Cat# RC205292, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDE1A (Cat# [TA803629]). Positive lysates [LY401556] (100ug) and [LC401556] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401556]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205292 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDE1A protein (Cat# [TP305292]). The protein was produced from HEK293T cells transfected with PDE1A cDNA clone (Cat# RC205292) using MegaTran 2.0 (Cat# [TT210002]).