

## Product datasheet for **RC226235**

### **PDE4A (NM\_001111307) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE4A (NM_001111307) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE4A
Synonyms:	DPDE2; PDE4; PDE46
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC226235 representing NM\_001111307  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAACCCCGACCGTCCCCTCGGAAAGGAGCCTGTCTGTCTACTGCCCGGGCCCGGGAGGGCCAGG  
 CCACCCTGAAGCCTCCCCCGCAGCACCTGTGGCGCAGCCTCGGACCCCATCCGATCCAGCAGCGCGG  
 CTACTCCGACAGCGGGAGCGCGCCGAGCGGGAGCGGCAGCCGCACCGGCCCATAGAGCGCGCCGATGCC  
 ATGGACACCAGCGACCGGCCCGCCTGCGCACGCCCGCATGTCTGGCCCTCGTCTTCCATGGCACTG  
 GCACCGGCAGCGCGCGCGGGCAGGAGCAGCAGCGCCTCGAGGCAGAGAAATGGGCCGACACCATC  
 TCCTGGCCGACGCCCTGGACTCGCAGGCGAGCCAGGACTCGTGTGCACGCCGGGCGGCCACCAGC  
 CAGCGCCGGGAGTCTTCTGTACCGCTCAGACAGCGACTATGACATGTCACCCAAGACCATGTCCCGGA  
 ACTCATCGGTACCAGCGAGGCGCAGCTGAAGACCTCATCGTAACACCATTTGCTCAGGTGCTGGCCAG  
 CCTCCGGAGCGTCCGTAGCAACTTCTACTCCTGACCAATGTGCCGTTCCAGTAACAAGCGGTCCCCG  
 CTGGGCGGCCACCCCTGTCTGCAAGGCCACGCTGTGAGAAGAAACGTGTGACGAGTTGGCCCGGAGA  
 CTCTGGAGGAGCTGGACTGGTGTCTGGAGCAGCTGGAGACCATGCAGACCTATCGCTGTGACGGAGAT  
 GGCTCGCACAAAGTTCAAAGGATGTTGAACCGTGAGCTCACACACCTGTGAGAAATGAGCAGGTCCGGA  
 AACCAGGTCTCAGAGTACATTTCCACAACATTCCTGGACAACAGAAATGAAGTGGAGATCCCATCACCCA  
 CGATGAAGGAACGAGAAAAACAGCAAGCGCCGCGACCAAGACCCCTCCAGCCGCCCGCCCTGTACC  
 ACATTTACAGCCCATGTCCAAAACACAGGGTTGAAAAAGTTGATGCATAGTAACAGCCTGAACAACTCT  
 AACATTTCCCGATTTGGGGTGAAGACCGATCAAGAAGAGCTCCTGGCCCAAGAACTGGAGAACCTGAACA  
 AGTGGGCGCTGAACATCTTTTGGTGTGGATTACGCTGGAGGCGCTCACTACCTCATGTATGATCAT  
 GATATTCCAGGAGCGGGACCTGCTGAAGAAATTCGCATCCCTGTGGACAGGATGGTGACATACATGCTG  
 ACGCTGGAGGATCACTACCACGCTGACGTGGCCTACCATAACAGCCTGCACGCAGCTGACGTGCTGACGT  
 CCACCCACGTAAGTGTGGCCACGCTGCACTAGATGACGTGTTACGGACCTGGAGATTCTCGCCGCCCT  
 TTTCGGGCTGCCATCCACGATGTGGATCACCTGGGCTCCTCAACAGTTTCTCATCAACACCAATTTCG  
 GAGCTGGCGTCACTGTACAACGATGAGTCGGTGTGAGAAATCACACCTGGCCGTGGGCTTCAAGTGC  
 TGCAGGAGGACAACCTGCGACATTTCCAGAACCTCAGCAAGCGCCAGCGGAGAGCTACGCAAGATGGT  
 CATCGACATGGTGTGGCCACGGACATGTCCAAGCACATGACCTCCTGGCTGACCTGAAGACCATGGT  
 GAGACCAAGAAAGTGACCAGCTCAGGGTCTCCTGCTAGATAACTACTCGACCGCATCCAGGTCTCC  
 GGAACATGGTGCCTGTGCCGACCTCAGCAACCCACCAAGCCGCTGGAGCTGTACCGCCAGTGGACAGA  
 CCGCATCATGGCCGAGTTCTTCCAGCAGGGTGACCGAGAGCGGAGCGTGGCATGGAAATCAGCCCCATG  
 TGTGACAAGCACACTGCCTCCGTGGAGAAGTCTCAGGTGGGTTTTATTGACTACATTGTGACCCATTGT  
 GGGAGACTGGGCGGACCTTGTCCACCCAGATGCCCAGGAGATCTTGGACTTTGGAGGACAACCGGGA  
 CTGGTACTACAGCGCCATCCGGCAGAGCCATCTCCGCCACCGAGGAGGAGTCAAGGGGGCCAGGCCAC  
 CCACCCCTGCCTGACAAGTTCCAGTTTGGAGTGTGAGCTGACGCTGGAGGAGGAAGAGGAGGAAGAAATATCAATGG  
 CCCAGATACCGTGCACAGCCCAAGAGGCATTGACTGCGCAGGGATTGTGAGGAGTGGAGGAAGCTCTGGA  
 TGCAACCATAGCCTGGGAGGCATCCCCGGCCAGGAGTCGTTGGAAGTTATGGCACAGGAAGCATCCCTG  
 GAGCCGAGCTGGAGGCAGTGTATTTGACACAGCAGGCACAGTCCACAGGCAAGTGCACCTGTGGCTCCGG  
 ATGAGTTCTCGTCCCGGAGGAATTCGTGGTTGCTGTAAGCCACAGCAGCCCTCTGCCCTGGCTTTCA  
 AAGCCCCCTTCTCCCTGCTTGGAGGACCCTGTCTGTTTACAGAGCATGCCCGGGCCTCCCGGGCCTCCCC  
 TCCACGGCGGCCGAGGTGGAGGCCAACGAGAGCACCAGGCTGCCAAGAGGGCTTGCAGTGCCTGCGCAG  
 GGACATTTGGGAGGACACATCCGCACTCCAGCTCCTGGTGGCGGGGGTCAAGTGGAGACCCTACC

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC226235 representing NM\_001111307  
 Red=Cloning site Green=Tags(s)

MEPPTVPSERSLSLSLPGPREGQATLKPPPQHLWRQPRTPIRIQQRGYSDSAERAERERQPHRPIERADA  
 MDTSDRPLRTRMSWPSSFHGTGTGSGGAGGSSRRFEAENGTPSPGRSPLDSQASPLVLHAGAATS  
 QRRESFLYRSDSDYDMSPKTMSRNSVSTSEHAEDLIVTFFAQLASLRSVRSNFSLLTNVPVPSNKRSP  
 LGGTPVCKATLSEETCQQLARETLEELDWCLEQLETMQTYRSVSEMASHKFKRMLNRELTHLSEMSRSG  
 NQVSEYISTTFLDKQNEVEIPSPTMKEREKQAPRPRPSQPPPPVPHLQPMQITGLKMLMHSNLSNNS  
 NIPRFVKTQDEELLAQELLENLKWGLNIFCVSDYAGGRSLTCIMYMFQERDLLKFRIPVDTMVTYML  
 TLEDHYHADVAYHNSLHAADVQLQSTHVLATPALDAVFTDLEILAAALFAAAIHDVDHPGVSQFLINTNS  
 ELALMYNDESVLENHLLAVGFKLLQEDNCDIFQNL SKRQRQSLRKMVIDMVLATDMSKHTLLADLKT MV  
 ETKKVTSSGVL LLDNYS DRIQVLRNMVHCADLSNPTKPLELYRQWTDRI MAEFFQ QGDRE RERGM EISPM  
 CDKHTASVEKSQVGFIDYIVHPLWETWADLVHPDAQEILD TLEDNRD WYYSAIRQSPSPPEEESRGPGH  
 PPLPDKFQFELTEEEEEEEISMAQIPCTAQEALTAQGLSGVEEALDATI AWEASPAQESLEVMQAESL  
 EAEL EAVYLTQQAQSTGSAPVAPDEFSSREEFVAVSHSSPSALALQSPLLPAWRTL SVSEHAPGLPGLP  
 STAAEVAQREHQAAKRACSACAGTFGEDTSALPAPGGGGSGGDPT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3507\\_g03.zip](https://cdn.origene.com/chromatograms/mg3507_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



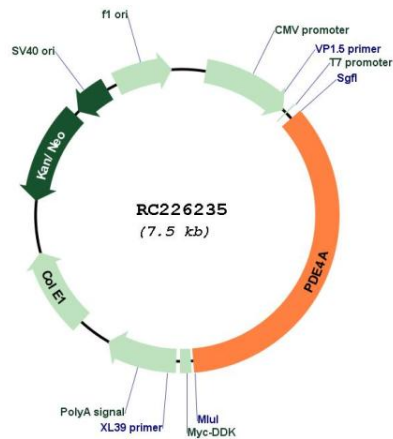
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_001111307
<b>ORF Size:</b>	2658 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001111307.2</a>
<b>RefSeq ORF:</b>	2661 bp
<b>Locus ID:</b>	5141
<b>UniProt ID:</b>	<a href="#">P27815</a>
<b>Cytogenetics:</b>	19p13.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Progesterone-mediated oocyte maturation, Purine metabolism
<b>MW:</b>	98 kDa

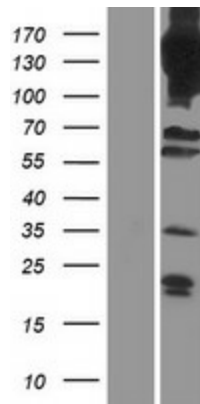
**Gene Summary:**

The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase (PDE) family, and PDE4 subfamily. This PDE hydrolyzes the second messenger, cAMP, which is a regulator and mediator of a number of cellular responses to extracellular signals. Thus, by regulating the cellular concentration of cAMP, this protein plays a key role in many important physiological processes. Alternatively spliced transcript variants encoding different isoforms have been described for this gene.[provided by RefSeq, Jul 2011]

**Product images:**



Circular map for RC226235



Western blot validation of overexpression lysate (Cat# [LY426362]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226235 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).