

## Product datasheet for **SC110970**

### **PDE2A (NM\_002599) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE2A (NM_002599) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDE2A
Synonyms:	CGS-PDE; cGSPDE; PDE2A1; PED2A4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene ORF sequence for NM_002599 edited
ATGGGGCAGGCATGCGGCCACTCCATCCTCTGCAGGAGCCAGCAGTACCCGGCAGCGCGA
CCGGCTGAGCCGCGGGGCCAGCAGGTCTTCTCAAGCCGACGAGCCGCCCGCCGCCG
CAGCCATGCGCCGACAGCCTGCAGGACGCCCTTGTGAGTCTGGGCTCTGTATCGACATT
TCAGGCCGTGCAACGTGCTGTCAAGGAGGCCCTGTCACTGTGCTCCCCGAGTGGAAAG
GTCTACACCTACCTACTGGATGGTGAAGTCCCAGCTGGTGTGTGAGGACCCCCACATGAG
CTGCCCCAGGAGGGGAAAGTCCGGGAGGCTATCATCTCCAGAAGCGGCTGGGCTGCAAT
GGGCTGGGCTTCTCAGACCTGCCAGGGAAGCCCTTGGCCAGGCTGGTGGCTCCACTGGCT
CCTGATACCCAAGTGCTGGTGCATGCCGCTAGCGGACAAGGAGGCTGGGGCCGTGGCAGCT
GTCATCTTGGTGCAGTGTGGCCAGCTGAGTGATAATGAGGAATGGAGCCTGCAGGCGGTG
GAGAAGCATACCCTGGTGCCTTGCAGGAGGTGCAGGTCTGCAGCAGCGCGGGCCAGG
GAGGCTCCCCGAGCCGTCCAGAACCCCCGAGGGGACGGCGGAAGACCAGAAGGGCGGG
GCGGCGTACACCGACCGCAGCCGAAGATCCTCCAAGTGTGCGGGGAAGTCTACGACCTG
GATGCCTCTTCCCTGCAGCTCAAAGTGTCCAATACCTGCAGCAGGAGACCCGGGATCC
CGCTGCTGCCTCTGCTGGTGTGCGGAGGACAATCTCCAGCTTTCTTGAAGGTGATCGGA
GACAAAGTGTCTCGGGGAAGAGGTGAGCTTCCCTTGCAGGATGCCTGGGCCAGGTGGT
GAAGACAAGAAGTCCATCCAGCTGAAGGACCTCACCTCCGAGGATGTACACAGCTGCAG
AGCATGTTGGGCTGTGAGCTGCAGGCCATGCTCTGTGTCCTGTGCATCAGCCGGGCCACT
GACCAGGTGGTGGCTTGGCCTGCGCCTTCAACAAGCTAGAAGGAGACTTGTTCACCGAC
GAGGACGAGCATGTGATCCAGCACTGCTTCCACTACACAGCACCCTGCTCACCAGCACC
CTGGCCTTCCAGAAGGAACAGAACTCAAGTGTGAGTGCAGGCTCTTCTCCAAGTGGCA
AAGAACCTCTTCAACCCACTGGATGACGTCTGTCTGCTCCAGGAGATCATCACGGAG
GCCAGAACTCAGCAACGCAGAGATCTGCTCTGTGTTCTGCTGGATCAGAATGAGCTG
GTGGCCAAGGTGTTTCAGCGGGGCGTGGTGGATGATGAGAGCTATGAGATCCGCATCCCG
GCCGATCAGGGCATCGCGGGACAGTGGCGACACCGGGCCAGATCCTGAACATCCCTGAC
GCATATGCCCATCCGCTTTTCTACCGCGCGTGGACGACAGCACCAGGCTTCCGCACGCGC
AACATCCTCTGCTTCCCATCAAGAACGAGAACCAGGAGGTGATCGGTGTGGCCGAGCTG
GTGAACAAGATCAATGGGCCATGGTTCAGCAAGTTCGACGAGGACCTGGCGACGGCTTC
TCCATCTACTGCGGCATCAGCATCGCCATTCTCTCTATACAAAAAAGTGAATGAGGCT
CAGTATCGCAGCCACTGGCCAATGAGATGATGATGTACCACATGAAGGTCTCCGACGAT
GAGTATACCAAATTTCTCCATGATGGGATCCAGCCTGTGGCTGCCATTGACTCCAATTTT
GCAAGTTTCACCTATACCCTCGTTCCTGCCGAGGATGACACGTCCATGGCCATCCTG
AGCATGCTGCAGGACATGAATTTTCATCAACAACACTACAAAATTGACTGCCCGACCTGGCC
CGGTTCTGTTTGTGAGTGAAGAAGGGCTACCGGGATCCCCCTACCACAAGTGGATGCAC
GCCTTTTCTGCTCCACTTCTGCTACCTGCTCTACAAGAACCTGGAGCTCACCACACTAC
CTCGAGGACATCGAGATCTTTCGCTTGTATTTTCTGCTGATGTGTCATGACCTGGACCAC
AGAGGCACAAACACTTTTCCAGGTGGCCTCGAAATCTGTGCTGGTGGCTGCGCTCTACAGC
TCTGAGGGCTCCGTCATGGAGAGGCACCACTTTGCTCAGGCCATCGCCATCCTCAACACC
CACGGCTGCAACATCTTTGATCATTTTCTCCCGAAGGACTATCAGCGCATGCTGGATCTG
ATGCGGGACATCATCTTGGCCACAGACCTGGCCACCATCTCCGATCTTCAAGGACCTC
CAGAAGATGGCTGAGGTGGGCTACGACCGAAACAACAAGCAGCACCACAGACTTCTCCTC
TGCTCTCATGACCTCCTGTGACCTCTCTGACCAGACCAAGGGCTGGAAGACTACGAGA
AAGATCGCGGAGCTGATCTACAAAGAAATTTCTTCTCCAGGGAGACCTGGAGAAGGCCATG
GGCAACAGGCCGATGGAGATGATGGACCGGAGAAAGGCCATATCCCTGAGCTGCAAAATC
AGCTTCATGGAGCACATTGCAATGCCATCTACAAGCTGTTGCAGGACCTGTTCCCCAAA
GCGGCAGAGCTGTACGAGCGCTGGCCTCCAACCGTGAGCACTGGACCAAGGTGTCCAC
AAGTTCACCATCCGCGGCTCCCAAGTAACAACCTCGCTGGACTTCTGGATGAGGAGTAC
GAGGTGCCTGATCTGGATGGCACTAGGGCCCCATCAATGGCTGCTGCAGCCTTGTGCT
GAGTGA
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002599 unedited  
 TCGCTGAGGAGCGCATTTCAGTGGCAGCGGGNAGAGGCGGGAGCAGCGGGGCAGCATAGC  
 TGGATTGGGGTGTGAGTCCAGGCTGAGTAGGGGGCAGCCACTGCTCTTGGTCCCTGTG  
 CCTGCTGGGGTGCCTGCCCTGAACTCCAGGCAGCGGGACAGGGCGATGTGCCACCTT  
 AGTCTGGCTGGGAGGCGGACGATGAGGAGTGATGGGGCAGGCATGCGGCCACTCCATCC  
 TCTGCAGGAGCCAGCAGTACCCGGCAGCGCCGCGGCTGAGCCGCGGGCCAGCAGGTCT  
 TCCTCAAGCCGGACGAGCCCGCCGCGCCGCCAGCCATGCGCCGACAGCCTGCAGGACG  
 CCTTGCTGAGTCTGGGCTGTGTCATCGACATTTTCAGGCCTGCAACGTGCTGTCAAGGAGG  
 CCCTGTACAGTGTGCTCCCCGAGTGGAAGTGTCTACACCTACCTACTGGATGGTGAGT  
 CCCAGCTGGTGTGAGGACCCCCACATGAGCTGCCAGGAGGGGAAAGTCCGGGAGG  
 CTATCATCTCCATAAGCGGCTGGGCTGCAATGGGCTGGGCTTCTCAGACCTGCCAGGGA  
 AGCCCTTGGCCAGGCTGGTGGCTCCACTGGCTCCTGATACCCAAGTGTGGTCATGCCGC  
 TAGCGGACAAGGAGGCTGGGGCCGTGGCAGCTGTATCCTTGTGCACTGTGGCCAGCTGG  
 ATGATAATGAGGAATGGAGCCCTGCAGCGGTGGAGAAGCATACCCTGGTCGCCCTTGGCG  
 AGGTGCAGGTCTGCAGCACCGCGGCCAGGGAGGTCTCCGAACCGTCCAGAACCCCC  
 GAAAGGGACT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002599 unedited  
 ATGGCCGCGCCGCATCTATATCGAGTTTTTTTTTTTTTTTTTTTGGTAGAAAAGAAAAGAT  
 TTATTCTCATGTACAAAGCGGTGAGCCACGGGACCATATACGACAGTTGCACAGAGTCC  
 TATAAAAACGCATCTCTCTAAAGGCAACTCAGAAAGGTAAGGCAGGTGGACCCCCCCCC  
 CACCCCAACGCACACAGAATGAAACGGAGAAAAGAGAGAAGCCAGTGGCCGGCTGA  
 CCCAAGAGTCCCCGCCCTATGGGGTCTCCAAGCCCCAGGGCACAGGTGGATATGGCCTT  
 GAAGAGAGAGCCCTGCCAGGGCTGAAGCCAGGTCTCTACTGGTGCAGGAATGGGTAAG  
 GGGCTCAGGCCAAGGGGAACACTCAGGGGGCTCTGAGACACTCAAGGTTGGGCTCTCTG  
 TGCCTTAAGGTTGCAGAAACATTCATAGCCTCTGCTGGGACTCCGCAGAGCGATAGAGC  
 TATTTTAGACATTGATCTAAAATGGATCTTATAGCATGGATTGTCTTACCCGCTCCCTGT  
 TTGGCCAGACAGGGGAAGAGACTCGCCAGCGTACACAGGCAGGAGGAAGCATGGCTG  
 GCTCATTACACTGNGCCTGTCTCCAGTGGGNGATCCCTNCTGCCCTCAATCCATCCT  
 CCTTCTCCAGGGCCCTCTCTGCAGACTGAGCTGCCCTCTGCAGCTTCCCTGGGC  
 CCTGTATCCCCAGTCCCATCCACATATTTAATAAGTCCCTCAAAGGGGCTTCGCCCCGG  
 GTGTTTTAGTCTCCAGATAAGGAATGTTTCCAGATGCCACTTGTACTCAAATGCTACC  
 TCCTCCTAAAGATCCGAACCCAGGGGGGAACCCAAAGGATGACAATATTGGGGGCAA  
 TGGGCAGAAACCTCACGCAAAAAAGCTGGNAATGCCAGGGGCCAGAGCCAATAGC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002599

**Insert Size:**

4600 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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).

<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_002599.1</a> , <a href="#">NP_002590.1</a>
<b>RefSeq Size:</b>	4240 bp
<b>RefSeq ORF:</b>	2826 bp
<b>Locus ID:</b>	5138
<b>UniProt ID:</b>	<a href="#">O00408</a>
<b>Cytogenetics:</b>	11q13.4
<b>Domains:</b>	PDEase, GAF, HDc
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Progesterone-mediated oocyte maturation, Purine metabolism
<b>Gene Summary:</b>	<p>Cyclic nucleotide phosphodiesterase with a dual-specificity for the second messengers cAMP and cGMP, which are key regulators of many important physiological processes. Plays an important role in growth and invasion of malignant melanoma cells (e.g. pseudomyxoma peritonei (PMP) cell line) (PubMed:24705027).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform, PDE2A3 (see PMID:9210593). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>