

Product datasheet for **RG218974**

PDE5A (NM_033430) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE5A (NM_033430) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDE5A
Synonyms:	CGB-PDE; CN5A; PDE5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG218974 representing NM_033430
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTGCCCTTTGGAGACAAAACAAGAGAAATGGTCAATGCATGGTTTGTCTGAGAGAGTTACACCATCC
CTGTGTGCAAGGAAGGTATCAGAGGCCACACCGAATCTTGCTCTTGCCCTTGACAGAGTCCCTCGTGC
AGATAACAGTGCCCTTGGAAACCAACCAAGGAAAATCTCTGCCTCTGAATTTGACCGGCCTCTTAGACCC
ATTGTTGTCAAGGATTCTGAGGGAAGTGTGAGCTTCTCTCTGACTCAGAAAAGAAGGAACAGATGCCTC
TAACCCCTCCAAGTTTGTATCATGATGAAGGGGACCAGTCTCAAGACTCTTGAATTAGTGAAGGATAT
TTCTAGTCATTTGGATGTCACAGCCTTATGTCACAAAATTTTCTGCATATCCATGGACTGATATCTGCT
GACCGCTATTCCTGTTCTTGTCTGTGAAGACAGCTCCAATGACAAGTTTCTTATCAGCCGCTCTTTG
ATGTTGCTGAAGTTCAACACTGGAAGAAGTTTCAAATAACTGTATCCGCTTAGAATGGAACAAAGGCAT
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AAGAGGTTGTTGGTGTAGCCAGGCCATCAACAAGAAATCAGGAAACGGTGGGACATTTACTGAAAAAGA
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TCACTGCTGGAGAACAAGAGAAATCAGGTGCTGCTTGACCTTGCTAGTTAATTTTTGAAGAACAACAAT
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TTTCATAGTGGATGAAGATTGCTCCGATTCTTTTCTAGTGTGTTTCACATGGAGTGTGAGGAATTAGAA
AAATCATCTGATACATTAACAAGGGAACATGATGCAACAAAAATCAATTACATGTATGCTCAGTATGTCA
AAAATACTATGGAACCACTTAATATCCCAGATGTCAGTAAGGATAAAAAGATTTCCCTGGCAACTGAAA
TACAGGAAATGTAAACCAGCAGTGCATTAGAAGTTTGTCTTGTACACCTATAAAAAATGGAAAGAAGAA
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TGAAGCAGTGGAGAGAGCCATGGCCAAGCAATGGTACATTGGAGGTTCTGTCGTATCATGCTTCAGCA
GCAGAGGAAGAAACAAGAGAGCTACAGTCGTTAGCGGCTGCTGTGGTCCATCTGCCAGACCCCTAAAA
TTACTGACTTTAGCTTCAAGTACTTTGAGCTGTCTGATCTGGAACAGCACTGTGTACAATTCGGATGTT
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CTGCAATTACAAAACCTGGCCTATTCAACAACGGATAGCAGAACTTGTAGCAACTGAATTTTTGATCA
AGGAGACAGAGAGAGAAAAGAACTCAACATAGAACCCTGATCTAATGAACAGGGAGAAGAAAAACAAA
ATCCCAAGTATGCAAGTTGGGTTTATAGATGCCATCTGCTTGAACCTGTATGAGGCCCTGACCCAGTGT
CAGAGGACTGTTCCCTTGTAGTGGCTGCAGAAAGAACAGGAGAAATGGCAGGCCCTTGCAGAAACA
GCAGGAGAAGATGCTGATTAATGGGAAAGCGCCAGGCCAAGCGGAAC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence: >RG218974 representing NM_033430
 Red=Cloning site Green=Tags(s)

MLPFGDKTREMVAWFAERVHTIPVCKEGIRGHTESCSCPLQQSPRADNSAPGTPTRKISASEFDRPLRP
 IVVKDSEGTVSFLSDSEKKEQMPLTPPRFDHDEGDQCSRLLELVKDISSHLDVLTALCHKIFLHIHGLISA
 DRYSLFLVCESSNDKFLISRFLDVAEGSTLEEVSNNCIRLEWNGIVGHVAALGEPLNIKDAYEDPRFN
 AEVDQITGYKTQSILCMPKIKHREEVVGVAQAINKKSGNGGTFTEKDEKDFAAAYLAFCGIVLHNAQLYET
 SLLENKRNVLLDLASLIFEEQQSLEVILKKAATIISFMQVQKCTIFIVDEDCSDSFSSVFHMECEELE
 KSSDTLTREHDANKINYMYAQYVKNTEPLNIPDVSKDKRFPWTTENTGNVNVQCCIRSLCTPIKNGKKN
 KVIQVQQLVKNMEENTGKVKPFNRNDEQFLEAFVIFCGLGIQNTQMYEAVERAMAKQMVTLVLSYHASA
 AEEETRELQSLAAAVVPSAQTLEITDFSFDFELSDLETALCTIRMFTDLNLVQNFQMKHEVLCRWILSV
 KKNYRKNVAYHNWRHAFNTAQCMFAALKAGKIQNKLTDLLELALLIAALSHDLDRGVNNSYIQRSEHPL
 AQLYCHSIMEHHHFDQCLMILNSPGNQILSGLSIEEYKTLKI I KQAILATDLALYIKRRGEFFELIRKN
 QFNLEDPHQKELFLAMLMTACDLSAITKPWPIQQRIAELVATEFFDQGDREKELNIEPTDLNREKKNK
 IPSMQVGFIDAICLQLYEALTHVSEDCFPLLDGCGRNRQKWQALAEQQEKMLINGESGQAKRN

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_033430

ORF Size: 2499 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_033430.3](#)

RefSeq Size: 6836 bp

RefSeq ORF: 2502 bp

Locus ID: 8654

UniProt ID: [O76074](#)

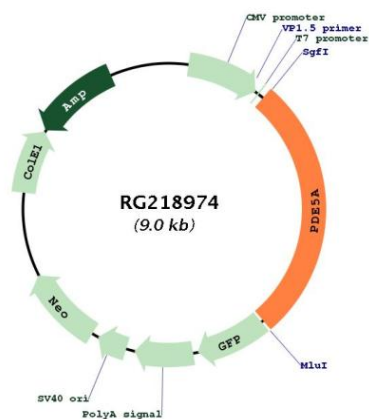
Cytogenetics: 4q26

Protein Families: Druggable Genome

Protein Pathways: Progesterone-mediated oocyte maturation, Purine metabolism

Gene Summary: This gene encodes a cGMP-binding, cGMP-specific phosphodiesterase, a member of the cyclic nucleotide phosphodiesterase family. This phosphodiesterase specifically hydrolyzes cGMP to 5'-GMP. It is involved in the regulation of intracellular concentrations of cyclic nucleotides and is important for smooth muscle relaxation in the cardiovascular system. Alternative splicing of this gene results in three transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG218974