

Product datasheet for **SC120663**

PDE5A (NM_033430) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE5A (NM_033430) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDE5A
Synonyms:	CGB-PDE; CN5A; PDE5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_033430, the custom clone sequence may differ by one or more nucleotides

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ATGTTGCCCTTTGGAGACAAAACAAGAAAATGGTCAATGCATGGTTTGGCTGAGAGAGTTACACCATCC
CTGTGTGCAAGGAAGGTATCAGAGGCCACACCGAATCTTGCTCTGTCCCTTGACAGAGAGTCTCGTGC
AGATAACAGTGCCCTGGAAACCAACCAGGAAAATCTCTGCCTCTGAATTTGACCGGCCTCTTAGACCC
ATTGTTGTCAAGGATTCTGAGGGAAGTGTGAGCTTCTCTGACTCAGAAAAGAAGGAACAGATGCCTC
TAACCCCTCCAAGTTTGTATCATGATGAAGGGGACCAGTGCTCAAGACTCTTGAATTAGTGAAGGATAT
TTCTAGTCATTTGGATGTCACAGCCTTATGTCACAAAATTTTCTGCATATCCATGGACTGATATCTGCT
GACCGCTATTCCTGTTCTTGCTGTGAAGACAGCTCCAATGACAAGTTTCTTATCAGCCGCTCTTTG
ATGTTGCTGAAGTTCAACACTGGAAGAAGTTTCAAATAACTGTATCCGCTTAGAATGGAACAAAGGCAT
TGTGGGACATGTGGCAGCGCTTGGTGAGCCCTGAACATCAAAGATGCATATGAGGATCCTCGGTTCAAT
GCAGAAGTTGACCAAATTACAGGCTACAAGACACAAAGCATTCTTTGTATGCCAATTAAGAATCATAGGG
AAGAGGTTGTTGGTGTAGCCAGGCCATCAACAAGAAATCAGGAAACGGTGGGACATTTACTGAAAAGA
TGAAGGACTTTGCTGCTTATTTGGCATTGTTGGTATTGTTCTTCATAATGCTCAGCTCTATGAGACT
TCACTGCTGGAGAACAAGAGAAAATCAGGTGCTGCTTGACCTTGCTAGTTAATTTTTGAAGAACAACAAT
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AAAATACTATGGAACCACTTAATATCCCAGATGTCAGTAAGGATAAAAAGATTTCCCTGGACAACCTGAAA
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TGAAGCAGTGGAGAGCCATGGCCAAGCAAATGGTCACATTGGAGGTTCTGTCGTATCATGCTTCAGCA
GCAGAGGAAGAAACAAGAGAGCTACAGTCGTTAGCGGCTGCTGTGGTGCCATCTGCCAGACCCCTAAAA
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GCCAGCTTTACTGCCATTCAATCATGGAACACCATCATTTTGACCAGTGCCTGATGATTCTTAATAGTC
CAGGCAATCAGATTCTCAGTGGCCTCTCCATTGAAGAATAAAGACCACGTTGAAAATAATCAAGCAAGC
TATTTTAGCTACAGACCTAGCACTGTACATTAAGAGGCGAGGAGAATTTTTTGAACCTATAAGAAAAAT
CAATTCATTTGGAAGATCCTCATCAAAAGGAGTTGTTTTGGCAATGCTGATGACAGCTTGTGATCTTT
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ATCCCAAGTATGCAAGTTGGGTTTATAGATGCCATCTGCTTGAACCTGTATGAGGCCCTGACCCAGTGT
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GCAGGAGAAGATGCTGATTAATGGGAAAAGCGGCCAGGCCAAGCGGAAGTGA
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5' Read Nucleotide Sequence: >OriGene 5' read for NM_033430 unedited
 GGCCGCGAATTCGGCACCAGCCTCACCTCACCTCACCTGCGCGGTTGTTGCCCTACGG
 AGCCTCCTGGAGTCCAGGATCGGCGGAGTTCGAAAACGAACTTCCCACGTTTGCTATGTT
 GCCCTTTGGAGACAAAACAAGAGAAATGGTCAATGCATGGTTTGTGAGAGAGTTACAC
 CATCCCTGTGTGCAAGGAAGGTATCAGAGGCCACACCGAATCTTGCTCTTGCCCTTGCA
 GCAGAGTCTCGTGCAGATAACAGTGTCCCTGGAACACCAACCAGGAAAAATCTCTGCCTC
 TGAATTTGACCGCCTCTTAGACCCATTGTTGTCAAGGATTCTGAGGGAAGTGTGAGCTT
 CCTCTCTGACTCAGAAAAGAAGGAACAGATGCCTCTAACCCCTCAAGGTTTGATCATGA
 TGAAGGGGACCAGTGTCTCAAGACTCTTGAATTAGTGAAGGATATTTCTAGTCATTTGGA
 TGTACAGCCTTATGTCACAAAATTTTCTTGCATATCCATGGACTGATATCTGCTGACCG
 CTATTCCTGTTCTTGCTGTGAAGACAGCTCCAATGACAAGTTTCTTATCAGCCGCT
 CTTTGATGTTGCTGAAGTTCAACTGGAAGAAGTTTCAAATAACTGTATCCGCTTAGA
 ATGGAACANAGGCATTGTGGACATGTGGCAGCGCTTGGTGAGCCCTTGACATCAAGATG
 CATATGAGGATCN

3' Read Nucleotide Sequence: >OriGene 3' genomic read for NM_033430 unedited
 TTGTGCGTCTATTTGTATACGACTCATATAGGGCGGCCGGAATTCGCACCAGCCTCA
 CCTCACCTCACCTGCGCGGTTGTTGCCCTACGGAGCCTCTGGAGTCCAGGATCGGCG
 GAGTTCGAAAACGAACTTCCCACGTTTGCTATGTTGCCCTTTGGAGACAAAACAAGAGAA
 ATGGTCAATGCATGGTTTGTGAGAGAGTTCACACCATCCCTGTGTGCAAGGAAGGTATC
 AGAGGCCACACCGAATCTTGCTCTTGCCCTTGCAGCAGAGTCTCGTGCAGATAACAGT
 GTCCTGGAACACCAACCAGGAAAAATCTCTGCCTCTGAATTTGACCGCCTCTTAGACCC
 ATGTTGTCAAGGATTCTGAGGGAAGTGTGAGCTTCTCTCTGACTCAGAAAAGAAGGAA
 CAGATGCCTTAACCCCTCAAGGTTTGATCATGATGAAGGGGACCAGTGTCTCAAGACTC
 TTGGAATTAGTGAAGGATATTTCTAGTCATTTGGATGTACAGCCTTATGTCACAAAAT
 TTCTTGATATCCATGGACTGATATCTGCTGACCGCTATTCCTGTTCTTGCTGTGAA
 GACAGCTCCAATGACAAGTTTCTTATCAGCCGCTCTTTGATGTTGCTGAAGGTTCAACA
 CTGGAAGAAGTTTCANATAACTGTATCCGCTTAGAATGGAACAAAGGCATTGTGGGACAT
 GTGGCAGCGCTTGGTGAGCCCTTTGACATCANAGATGCATATGANGATCCCTCGTTCAAT
 GCAGAAGTTGACCAAATTACANNGCTACAGACACAAAGCATTCTTTGTATGCCAATTAAG
 AATCATAAGGGAAGAGGT

Restriction Sites: NotI-NotI

ACCN: NM_033430

Insert Size: 5000 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).

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_033430.2](#), [NP_236914.2](#)

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]

Transcript Variant: This variant (2) differs in the 5' UTR and 5' coding region, and uses an alternate start codon, compared to variant 1. The encoded isoform (2, also known as PDE5A2) has a distinct and shorter N-terminus, compared to isoform 1. 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.