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Product datasheet for SC100003

PDE5A (NM_033437) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE5A (NM_033437) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDE5A
Synonyms:	CGB-PDE; CN5A; PDE5
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_033437, the custom clone sequence may differ by one or more nucleotides

ATGGTCAATGCATGGTTTGCTGAGAGAGTTCACACCATCCCTGTGTGCAAGGAAGGTATCAGAGGCCACA
CCGAATCTTGCTCTTGTCCCTTGCAGCAGAGTCCTCGTGCAGATAACAGTGCCCCTGGAACACCAACCAG
GAAAATCTCTGCCTCTGAATTTGACCGGCCTCTTAGACCCATTGTTGTCAAGGATTCTGAGGGAACTGTG
AGCTTCCTCTCTGACTCAGAAAAGAAGGAACAGATGCCTCTAACCCCTCCAAGGTTTGATCATGATGAAG
GGGACCAGTGCTCAAGACTCTTGGAATTAGTGAAGGATATTTCTAGTCATTTGGATGTCACAGCCTTATG
TCACAAAATTTTCTTGCATATCCATGGACTGATATCTGCTGACCGCTATTCCCTGTTCCTTGTCTGTGAA
GACAGCTCCAATGACAAGTTTCTTATCAGCCGCCTCTTTGATGTTGCTGAAGGTTCAACACTGGAAGAAG
TTTCAAATAACTGTATCCGCTTAGAATGGAACAAAGGCATTGTGGGACATGTGGCAGCGCTTGGTGAGCC
CTTGAACATCAAAGATGCATATGAGGATCCTCGGTTCAATGCAGAAGTTGACCAAATTACAGGCTACAAG
ACACAAAGCATTCTTTGTATGCCAATTAAGAATCATAGGGAAGAGGTTGTTGGTGTAGCCCAGGCCATCA
ACAAGAAATCAGGAAACGGTGGGACATTTACTGAAAAAGATGAAAAGGACTTTGCTGCTTATTTGGCATT
TTGTGGTATTGTTCTTCATAATGCTCAGCTCTATGAGACTTCACTGCTGGAGAACAAGAGAAATCAGGTG
CTGCTTGACCTTGCTAGTTTAATTTTTGAAGAACAACAATCATTAGAAGTAATTTTGAAGAAAATAGCTG
CCACTATTATCTCTTTCATGCAAGTGCAGAAATGCACCATTTTCATAGTGGATGAAGATTGCTCCGATTC
TTTTTCTAGTGTGTTTCACATGGAGTGTGAGGAATTAGAAAAATCATCTGATACATTAACAAGGGAACAT
GATGCAAACAAAATCAATTACATGTATGCTCAGTATGTCAAAAATACTATGGAACCACTTAATATCCCAG
ATGTCAGTAAGGATAAAAGATTTCCCTGGACAACTGAAAATACAGGAAATGTAAACCAGCAGTGCATTAG
AAGTTTGCTTTGTACACCTATAAAAAATGGAAAGAAGAATAAAGTTATAGGGGTTTGCCAACTTGTTAAT
AAGATGGAGGAGAATACTGGCAAGGTTAAGCCTTTCAACCGAAATGACGAACAGTTTCTGGAAGCTTTTG
TCATCTTTTGTGGCTTGGGGATCCAGAACACGCAGATGTATGAAGCAGTGGAGAGAGCCATGGCCAAGCA
AATGGTCACATTGGAGGTTCTGTCGTATCATGCTTCAGCAGCAGAGGAAGAAACAAGAGAGCTACAGTCG
TTAGCGGCTGCTGTGGTGCCATCTGCCCAGACCCTTAAAATTACTGACTTTAGCTTCAGTGACTTTGAGC
TGTCTGATCTGGAAACAGCACTGTGTACAATTCGGATGTTTACTGACCTCAACCTTGTGCAGAACTTCCA
GATGAAACATGAGGTTCTTTGCAGATGGATTTTAAGTGTTAAGAAGAATTATCGGAAGAATGTTGCCTAT
CATAATTGGAGACATGCCTTTAATACAGCTCAGTGCATGTTTGCTGCTCTAAAAGCAGGCAAAATTCAGA
ACAAGCTGACTGACCTGGAGATACTTGCATTGCTGATTGCTGCACTAAGCCACGATTTGGATCACCGTGG
TGTGAATAACTCTTACATACAGCGAAGTGAACATCCACTTGCCCAGCTTTACTGCCATTCAATCATGGAA
CACCATCATTTTGACCAGTGCCTGATGATTCTTAATAGTCCAGGCAATCAGATTCTCAGTGGCCTCTCCA
TTGAAGAATATAAGACCACGTTGAAAATAATCAAGCAAGCTATTTTAGCTACAGACCTAGCACTGTACAT
TAAGAGGCGAGGAGAATTTTTTGAACTTATAAGAAAAAATCAATTCAATTTGGAAGATCCTCATCAAAAG
GAGTTGTTTTTGGCAATGCTGATGACAGCTTGTGATCTTTCTGCAATTACAAAACCCTGGCCTATTCAAC
AACGGATAGCAGAACTTGTAGCAACTGAATTTTTTGATCAAGGAGACAGAGAGAGAAAAGAACTCAACAT
AGAACCCACTGATCTAATGAACAGGGAGAAGAAAAACAAAATCCCAAGTATGCAAGTTGGGTTCATAGAT
GCCATCTGCTTGCAACTGTATGAGGCCCTGACCCACGTGTCAGAGGACTGTTTCCCTTTGCTAGATGGCT
GCAGAAAGAACAGGCAGAAATGGCAGGCCCTTGCAGAACAGCAGGAGAAGATGCTGATTAATGGGGAAAG
CGGCCAGGCCAAGCGGAACTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_033437 unedited
GTATGATTATGTAATACGATTTACTATAGGGCGGCCGCGAAATTCGCACCAGGCGGGGAA
GCTGGGGTGAGGGACGAGTCCACGGGACAGCCCAAAGGCAACATGACGGAACCTTGCCAA
AAGAAATGGTCAATGCATGGTTTGCTGAGAGAGTTCACACCATCCCTGTGTGCAAGGAAG
GTATCAGAGGCCACACCGAATCTTGCTCTTGTCCCTTGCAGCAGAGTCCTCGTGCAGATA
ACAGTGTCCCTGGAACACCAACCAGGAAAATCTCTGCCTCTGAATTTGACCGGCCTCTTA
GACCCATTGTTGTCAAGGATTCTGAGGGAACTGTGAGCTTCCTCTCTGACTCAGAAAAGA
AGGAACAGATGCCTCTAACCCCTCCAAGGTTTGATCATGATGAAGGGGACCAGTGCTCAA
GACTCTTGGAATTAGTGAAGGATATTTCTAGTCATTTGGATGTCACAGCCTTATGTCACA
AAATTTTCTTGCATATCCATGGACTGATATCTGCTGACCGCTATTCCCTGTTCCTTGTCT
GTGAAGACAGCTCCAATGACAAGTTTCTTATCAGCCGCCTCTTTGATGTTGCTGAAGGTT
CAACACTGGAAGAAGTTTCAAATAACTGTATCCGCTTAGAATGGAACAAAGGCATTGTGG
GACATGTGGCAGCGCTTGGTGAGCCCTTGAACATCAAAGATGCATATGANGATCCTCGGT
TCAATGCAGAAGTTGACCAAATTACAGGCTACAAGACACAAAGCATTCTTTGTATGCCAA
TTAAGAATCATANGGNNAAGAGTNGTTGGTGTAGCCCAGGCCATCAACAAGAAATCAGNA
AAACGTGGGACATTTACTGAANAAAGATGAAAAGACTNTGCTNGCTATTTGGCATTNTGN
GGNATTNGTCTTATAATGCTCAGCTCTATGAGACTTACTGCTGNAGAACAAGAGAATANG
TGCTGNCTGACTTGCTAT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_033437 unedited
AACTGTGNACCGCGGCCCGCTATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTGCTTCT
ATTTTTTGTTTTTTTACCAGAATGATAAAAATAAAACTGCATTATGTCAAGATATTTGTA
CACACTCAGAATTTTAAAAACTTAAGGAACATACTGAATTTTAGGCAAAATTTAGGGGAA
TCGGGACATAGATGGGAAAACACATTTTGGCGAAAGGTCCTTGAGAATGCTGGATTACCA
TGTCCCTTAGAAATTTTCTATCCAAATTAGTGATAGAAACTCAGATCAAATATCTTTTTT
GTGGGTTGGAGGTAGAAGTTAACAAATCAAGCAAATCTCTCCTTCTACTCTCCCCAAATC
CAAACATTCCTGCATATTTGAAACAAATTTTCCTTTCCTAGACCAGTTGCTTAATTCATT
ATCTACTTCTCCAATATTGAGTAAATGTGTCTTTAGGGGCACACATGTAGAATATTAATC
CACTTAAATGGGCTCAAATTCTAAGAAAATATTAACTATACTAAATGTTATGGGAAGAAA
ATACATTGAATGTGAGTTAAGGGCCAGTGTTTAGCATTCACATCCAGGATTCTCTGGATC
TCAGTTGACTTGTCCTATACATCAAAATATGGCAATTTTTCAATCACAATACTGCTAAAT
GTTATTCAGGCATAAAGTTTCTTACCCACTGTTCCCTCAAATTCATTTTTGACCCTAGTA
TTGGCAATAGCCCTTTGCTATTTATATAATTAAAACTTTNTCTTTAATTTCAATTGACAG
GAAAAAGAGTCATTTTGTACTCTCTTATCTATACCATGTCTCACTTCAGTCAATGCTACA
TTGTCACTTTTATTTTGAAAAGGAGGCTCAGAGAAAAAANCTCTAGAGAGATCTCTACAG
ACATTTTNCTTCCTGATAGACATCCAGCCATTCATTCT

Restriction Sites: NotI-NotI

ACCN: NM_033437

Insert Size: 4700 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_033437.2, NP_246273.2
RefSeq Size:	6788 bp
RefSeq ORF:	2472 bp
Locus ID:	8654
UniProt ID:	O76074
Cytogenetics:	4q26
Domains:	PDEase, GAF
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 (3) differs in the 5' UTR, lacks a portion of the 5' coding region, and uses a downstream start codon, compared to variant 1. The encoded isoform (3, also known as PDE5A3) is shorter at the N-terminus, compared to isoform 1. There are no publicly available full-length transcripts supporting this variant; it is represented based on full-length cloning by RT-PCR in PMID:10679255. 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.