

## Product datasheet for **RC214535**

### **PDE5A (NM\_001083) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE5A (NM_001083) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE5A
Synonyms:	CGB-PDE; CN5A; PDE5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC214535 representing NM\_001083  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGAGCGGGCCGCCCCAGCTTCGGGCAGCAGCGACAGCAGCAGCAGCCCCAGCAGCAGAAGCAGCAGC  
AGAGGGATCAGGACTCGGTCGAAGCATGGCTGGACGATCACTGGGACTTTACCTTCTCACTTTGTTAG  
AAAAGCCACCAGAGAAATGGTCAATGCATGGTTTCTGAGAGAGTTACACCATCCCTGTGTGCAAGGAA  
GGTATCAGAGGCCACACCGAATCTTGTCTTGTCCCTGCAGCAGAGTCCTCGTGAGATAACAGTGTCC  
CTGGAACACCAACCAGGAAAATCTCTGCCTCTGAATTTGACCGCCTCTTAGACCCATTGTTGTCAAGGA  
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GTTCTTGTCTGTGAAGCAGCTCCAATGACAAGTTTCTTATCAGCCGCCTCTTTGATGTTGCTGAAGGT  
TCAACTGGAAGAAGTTTCAAATAACTGTATCCGCTTAGAATGGAACAAAGGCATTGTGGGACATGTGG  
CAGCGCTTGGTGAGCCCTTGAACATCAAAGATGCATATGAGGATCCTCGGTTCAATGCAGAAGTTGACCA  
AATTACAGGCTACAAGACACAAAGCATTCTTTGTATGCCAATTAAGAATCATAGGGAAGAGGTTGTTGGT  
GTAGCCCAGGCCATCAACAAGAAATCAGGAAACGGTGGGACATTTACTGAAAAGATGAAAAGGACTTTG  
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CAAGAGAAATCAGGTGCTGCTTGACCTTGTAGTTAATTTTTGAAGAACAACAATCATTAGAAGTAATT  
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ATTAACAAGGGAACATGATGCAAAACAAAATCAATTACATGTATGCTCAGTACGTCAAAAAATACTATGGAA  
CCACTTAATATCCAGATGTCAGTAAGGATAAAAAGATTTCCCTGGACAACGAAAATACAGGAAATGTAA  
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TTTCTGGAAGCTTTTGCATCTTTTGGCTTGGGGATCCAGAACACGCAGATGTATGAAGCAGTGGAGA  
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AAGAGAGCTACAGTCGTTAGCGGCTGCTGTGGTCCATCTGCCAGACCCTTAAAATTACTGACTTTAGC  
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TTGTGCAGAACTCCAGATGAAACATGAGGTTCTTGCAGATGGATTTTAAAGTGTAAAGAAGAAATATCG  
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GCAGGCAAAATTCAGAACAAGCTGACTGACCTGGAGATACTTGCATTGCTGATTGCTGACTAAGCCACG  
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CCTTTGCTAGATGGCTGCAGAAAGAACAGGCAGAAATGGCAGGCCCTTGCAGAACAGCAGGAGAAGATGC  
TGATTAATGGGAAAGCGGCCAGGCCAAGCGGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214535 representing NM\_001083  
 Red=Cloning site Green=Tags(s)

MERAGPSFGQQRQQQPQQKQQQRDQDSVEAWLDDHWDFTF SYFVRKATREMVNAWFAERVHTIPVCKE  
 GIRGHTESCSCPLQQSPRADNSVPGTPTRKISASEFDRPLRPVVKDSEGTVSFLSDSEKKEQMP LTPPR  
 FDHDEGDQCSRLLELVKDISSHLDVLTALCHKIFLHIHGLISADRYSLFLVCESSNDKFLISR LFDVAEG  
 STLEEVSNNCIRLEWNGKIVGHVAALGEPLNIKDAYEDPRFNAEVDQITGYKTQSILCMP IKNHREEVVG  
 VAQAINKKSGNGGTFTEKDEKDF AAYLAFCGIVLHNAQLYETS LLENKRQVLLDLASLIFEEQQSLEVI  
 LKKIAAIIISFMVQVKCTIFIVDEDCSDSFSVFHMECEELEKSSDTLTREHDANKINYM YAQYVKNTME  
 PLNIPDVSKDKRFPWTTENTGNVNQQCIRSL LCTPIKNGKKNKVI GVCQLVNKMEENTGKVKPFNRNDEQ  
 FLEAFVIFCGLGIQNTQMYEAVERAMAKQMTLEVL SYHASAAEEETRELQSLAAAVVPSAQTLKITDFS  
 FSDFELSDLETALCTIRMFTDLNLVQNFQMKHEVL CRWILSVKKNYRKNVAYHNWRHAFNTAQCMFAALK  
 AGKIQNKLTDLEILALLIAALSHDLDRGVNNSYIQRSEHPLAQLYCHSIMEHHHF DQCLMILNSPGNQI  
 LSGLSIEEYKTKLIKQAILATDLALYIKRRGEFFEL IRKNQFNLEDPHQKELFLAMLMTACDLSAITK  
 PWPIQQRIAEVATEFFDQGDREKELNIEPTDLMNREKKNKIPSMQVGF IDAICLQLYEALTHVSEDCF  
 PLLDGCRCRNRQKWQALAEQQEKMLINGESGQAKRN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2663\\_e05.zip](https://cdn.origene.com/chromatograms/mg2663_e05.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

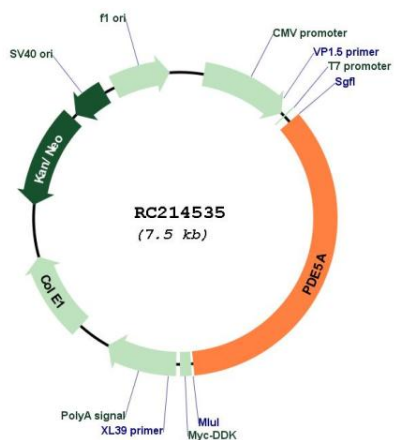
Cloning sites used for ORF Shuttling:



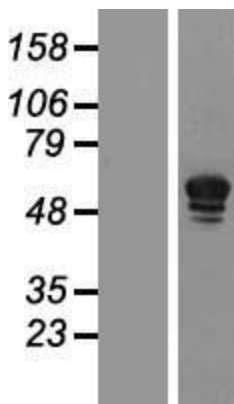
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_001083
<b>ORF Size:</b>	2625 bp
<b>OTI Disclaimer:</b>	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>
<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_001083.4</a>
<b>RefSeq Size:</b>	7005 bp
<b>RefSeq ORF:</b>	2628 bp
<b>Locus ID:</b>	8654
<b>UniProt ID:</b>	<a href="#">O76074</a>
<b>Cytogenetics:</b>	4q26
<b>Domains:</b>	PDEase, GAF, HDc
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Progesterone-mediated oocyte maturation, Purine metabolism
<b>MW:</b>	99.8 kDa
<b>Gene Summary:</b>	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 RC214535



Western blot validation of overexpression lysate (Cat# [LY421205]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214535 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).