

Product datasheet for **RG207219**

PDE2A (NM_002599) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE2A (NM_002599) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDE2A
Synonyms:	CGS-PDE; cGSPDE; PDE2A1; PED2A4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG207219 representing NM_002599
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCAGGCATGCGGCCACTCCATCCTCTGCAGGAGCCAGCAGTACCCGGCAGCGCAGCCGGCTGAGC
 CGCGGGGCCAGCAGGTCTTCTCAAGCCGACGAGCCGCCCGCCGAGCCATGCGCCGACAGCCT
 GCAGGACGCCTTCTGAGTCTGGGCTCTGTTCATCGACATTTAGGCTGCAACGTGCTGTCAAGGAGGCC
 CTGTGAGTGTGCTCCCCGAGTGGAACTGTCTACACCTACCTACTGGATGGTGTGAGTCCAGCTGGTGT
 GTGAGGACCCCCACATGAGCTGCCCCAGGAGGGGAAAGTCCGGGAGGCTATCATCTCCAGAAGCGGT
 GGGCTGCAATGGGCTGGGCTTCTCAGACCTGCCAGGGAAGCCCTTGCCAGGCTGGTGGCTCCACTGGCT
 CCTGATACCAAGTGTGGTGTGCGCTAGCGGACAAGGAGGCTGGGGCCGTGGCAGTGTCTTTGG
 TGCAGTGTGGCCAGTGTGATGATGAGGAATGGAGCCTGCAGGCGGTGGAGAAGCATACCTGGTGGC
 CCTGCGGAGGGTGCAGGTCTGCAGCAGCGCGGCCAGGGAGGCTCCCGAGCCGTCCAGAACCCCCG
 GAGGGGACGGCGGAAGACCAGAAGGGCGGGGCGGCGTACACCGACCGCAGCCGAAGATCCCTCAACTGT
 GCGGGGAACCTACGACCTGGATGCCTCTTCCCTGCAGCTCAAAGTGTCCAATACCTGCAGCAGGAGAC
 CCGGGCATCCCGCTGCTGCCTCCTGCTGGTGTGCGGAGACAATCTCCAGCTTTCTTGAAGGTATCGGA
 GACAAAGTGTGCGGGGAAGAGGTGAGCTTTCCCTTGACAGGATGCCTGGGCCAGGTGGTGGGAAGACAAGA
 AGTCCATCCAGCTGAAGGACCTCACCTCCGAGGATGTACAACAGCTGCAGAGCATGTTGGGCTGTGAGT
 GCAGGCCATGCTGTGTCCCTGTATCAGCCGGGCCACTGACCAGGTGGTGGCCTTGGCCTGCGCCTTC
 AACAGCTAGAAGGAGACTTGTTCACCGACGAGGACGAGCATGTATCCAGCACTGCTTCCACTACACCA
 GCACCGTGTCTACCAGCACCTGGCCTTCCAGAAGGAACAGAACTCAAGTGTGAGTGGCAGGCTCTTCT
 CCAAGTGGCAAAGAACCTCTTACCCACCTGGATGACGTCTCTGTCTGCTCCAGGAGATCATCAGGGAG
 GCCAGAAACCTCAGCAACGCAGAGATCTGCTCTGTGTTCTGCTGGATCAGAATGAGCTGGTGGCCAAGG
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 GACGGCCTTCTCCATCTACTGCGGCATCAGCATCGCCATTCTCTCTATACAAAAAGTGAATGAGGCT
 CAGTATCGCAGCCACCTGGCCAATGAGATGATGATGTACCACATGAAGGTCTCCGACGATGAGTATACCA
 AACTTCTCCATGATGGGATCCAGCTGTGGCTGCCATTGACTCCAATTTTGAAGTTTCACTATACCCC
 TCGTTCCTGCCCCGAGGATGACACGTCCATGGCCATCCTGAGCATGCTGCAGGACATGAATTTATCAAC
 AACTACAAAATTGACTGCCCCGACCTGGCCCGGTTCTGTTTGTGGTGAAGAAGGGCTACCGGGATCCCC
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 AGCACCACAGACTTCTCCTCTGCCTCCTCATGACCTCCTGTGACCTCTCTGACCAGACCAAGGGCTGGAA
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 AGCACATTGCAATGCCATCTACAAGCTGTTGCAGGACCTGTTCCCAAAGCGGCAGAGCTGTACGAGCG
 CGTGGCCTCAACCGTGAAGTGGACCAAGGTGTCCACAAGTTCACCATCCGCGGCCTCCAAGTAAC
 AACTCGCTGGACTTCTGGATGAGGAGTACGAGGTGCCTGATCTGGATGGCACTAGGGCCCCCATCAATG
 GCTGCTGCAGCCTTGATGCTGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG207219 representing NM_002599
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MGQACGHSILCRSQYPAARPAEPRGQVFLKPDPEPPPPQPCADSLQDALLSLGSVIDISGLQRAVKEA
 LSAVLPVETVYTYLLDGESQLVCEPPHELQEGKVREAIISQKRLGCNGLGFSDLPGKPLARLVA
 PDTQVLMPLADKEAGAVAAVILVHCGQLSDNEEWSLQAVEKHTLVARRVQVLLQQRGP
 EGTAEQKGGAAAYDRDRKILQLCGELYDLASSLQLKVLQYLQEQETRASRCCLLLVSE
 DNQLSCKVIGDKVLGEEVSFPLTGCLGQVVEDKKSIIQLKDLTSEDEVQLQSMGCELQ
 AMLCVPVISRATDQVVALACAFNKLEGLFTDEDEHVIQHCFHSTVLTSTLAFQKEQKLK
 CECQALLQVAKNLFTHLDDVSVLLQEITEARNLNAEICSVFLLDQNELVAKVFDGGV
 VDESIEIRIPADQGIAGHVATTGQILNIPDAYAHPLFYRGVDDSTGFRTRNILCFPIK
 NENQEVIGVAELVNKINGPWFSKFDEDLATAFSIYCGISIAHSLLYKKVNEAQYRSH
 LANEMMMYHMKVSDDEYTKLLHDGIQPVAAIDSNFASFTYTPRSLPEDDTSMAILSML
 QDMNFINNYKIDCPTLARFCLMVKKGYRDPYHNWMAFVSHFCYLLYKNELENTYLEDIE
 IFALFISCMCHDLDRGTNNSFQVASKSVLAALYSSEGSVMERHHAQAIAILNTHGCNIF
 DHFSRKDYQRMLDLMRDIIATDLAHLRIFKDLQMAEVGYDRNKKQHRLLLCCLMTSCD
 LSDQTKGWKTRKIAELIYKEFFSQGDLEKAMGNRPMEMMDREKAYIPELQISFMEH
 IAMPYIKLLQDLFPKAAELYERVASNREHWTKVSHKFTIRGLPSNSLDFLDEEYV
 PDLGTRAPINGCCSLDAE

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

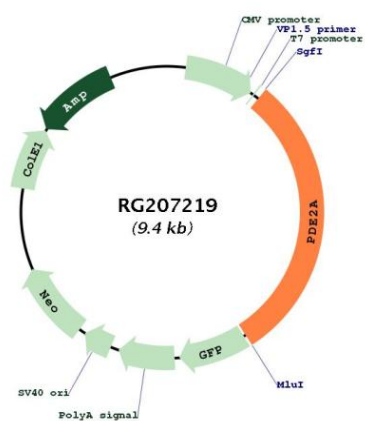


ACCN: NM_002599

ORF Size: 2823 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:	<ol style="list-style-type: none"> 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_002599.1 , NP_002590.1
RefSeq Size:	4240 bp
RefSeq ORF:	2826 bp
Locus ID:	5138
UniProt ID:	O00408
Cytogenetics:	11q13.4
Domains:	PDEase, GAF, HDc
Protein Families:	Druggable Genome
Protein Pathways:	Progesterone-mediated oocyte maturation, Purine metabolism
Gene Summary:	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]

Product images:



Circular map for RG207219