

Product datasheet for **RG210912**

PDE4 (PDE4B) (NM_001037341) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE4 (PDE4B) (NM_001037341) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDE4B
Synonyms:	DPDE4; PDEIVB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG210912 representing NM_001037341
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGAAAAGCAGGAGTGTGATGACGGTATGGCTGATGATAATGTTAAAGATTATTTGAATGTAGCT
 TGAGTAAATCCTACAGTTCTCCAGTAACACACTTGGGATCGACCTCTGGAGAGGGAGAAGGTGTTGCTC
 AGGAAACTTACAGTTACCACCACTGTCTCAAAGACAGAGTGAAAGGGCAAGGACTCCTGAGGGAGATGGT
 ATTTCCAGGCCGACCACACTGCCTTTGACAACGCTTCCAAGCATTGCTATTACAACCTGTAAGCCAGGAGT
 GCTTTGATGTGGAAAATGGCCCTTCCCCAGGTCGGAGTCCACTGGATCCCAGGCCAGCTCTTCCGCTGG
 GCTGGTACTTCACGCCACCTTCTCTGGGCACAGCCAGCGCAGAGAGTCATTTCTACAGATCAGACAGC
 GACTATGACTTGTACCAAAGGCGATGTCGAGAACTCTTCTCTCAAGCGAGCAACACGGCGATGACT
 TGATTGTAACCTTTTCCAGGTCCTTGCCAGCTTGCAGAGTGTGAGAAACAACCTCACTATACTGAC
 AAACCTTCATGGTACATCTAACAAGAGGTCCTCCAGCTGCTAGTCAGCCTCCTGTCTCCAGAGTCAACCCA
 CAAGAAGAATCTTATCAAAAATTAGCAATGGAAACGCTGGAGGAATTAGACTGGTGTGTTAGACCAGCTAG
 AGACCATACAGACCTACCGGTCTGTCAAGTGTGCTTCTAACAAGTTCAAAGAAATGCTGAACCGGGA
 GCTGACACACCTCTCAGAGATGAGCCGATCAGGGAACAGGTGTCTGAATACATTTCAAATACTTTCTTA
 GACAAGCAGAAATGATGTGGAGATCCCATCTCTACCCAGAAAGACAGGGAGAAAAAGAAAAAGCAGCAGC
 TCATGACCAGATAAGTGGAGTGAAGAAATTAATGCATAGTTCAAGCCTAAACAATAACAAGCATCTCAGC
 CTTTGGAGTCAACACTGAAAATGAAGATCACCTGGCCAAGGAGCTGGAAGACCTGAACAAATGGGGTCTT
 AACATCTTTAATGTGGCTGGATATTCTCACAATAGACCCTAACATGCATCATGTATGCTATATCCAGG
 AAAGAGACCTCCTAAAGACATTCAGAATCTCATCTGACACATTTATAACCTACATGATGACTTTAGAAGA
 CCATTACCATTCTGACGTGGCATATCACAAACAGCCTGCACGCTGCTGATGTAGCCAGTCGACCCATGTT
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 CCATCCATGACGTTGATCATCTGGAGTCTCCAATCAGTTTCTCATCAACACAAATTCAGAACTTGCTTT
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 TGTTAGCAACTGATATGTCTAACATATGAGCCTGCTGGCAGACCTGAAGACAATGGTAGAAACGAAGAA
 AGTTACAAGTTCAGGCGTTCTTCTCTAGACAACATAACCGATCGCATTAGGTCCTTCGCAACATGGTA
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 GCAGATTTGGTACAGCCTGATGCTCAGGACATTCTCGATACCTTAGAAGATAACAGGAACTGGTATCAGA
 GCATGATACCTCAAAGTCCCTCACCACACTGGACGAGCAGAACAGGGACTGCCAGGGTCTGATGGAGAA
 GTTTCAGTTTGAAGTACTCTCGATGAGGAAGATTCTGAAGGACCTGAGAAGGAGGGAGAGGGACACAGC
 TATTTACGAGCACAAGACGCTTTGTGTGATTGATCCAGAAAACAGAGATTCCTGGGAGAGACTGACA
 TAGACATTGCAACAGAAGACAAGTCCCCGTGGATACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG210912 representing NM_001037341
 Red=Cloning site Green=Tags(s)

MKKSRSVMTVMADDNVKDYFECSLSKSYSSSSNTLGIDLWRGRRCCSGLQLPPLSQRQSERARTPEGDG
 ISRPTTLPLTTLPSIAITTVSQECFDVENGPSPGRSPLDPQASSAGLVLHATFPGHSSQRRESFLYRSDS
 DYDLSPKAMSRNSSLPSEQHGDDLIVTTPFAQVLAASLRVSRNNTILTNLHGTSNKRSPAASQPPVSRVNP
 QEESYQKLAMETLEELDWCLEDQLETIQTYRSVSEMASNFKRMLNRELTHLSEMSRSGNQVSEYISNTFL
 DKQNDVEIPSPQKDKREKKKKQQLMTQISGVKKLMHSSSLNNTSISRFVNTENEDHLAKELEDLNKWL
 NIFNVAGYSHNRPLTCIMYAIQFQERDLLKTFRISSDTFITYMMTLEDHYHSDVAYHNSLHAADVAQSTHV
 LLSTPALDAVFTDLEILAAIFAAAIIHDVDHPGVSNQFLINTNSELALMYNDESVLENHHLAVGFKLLQEE
 HCDIFMNLTKKQRQTLRKMVIDMVLATDMSKHMSLLADLKTMTVETKKVTSSGVLNLDNYTDRIQVLRNMV
 HCADLSNPTKSLELYRQWTDRIEMEEFFQQGDKERERGMESPMCDKHTASVEKSQVGFIDYIVHPLWETW
 ADLVQPDQDILDLEDRNRWYQSMIPQSPPLDEQNRDCQGLMEKFQFELTLDEEDSEGPEKEGEGHS
 YFSSTKTLCVIDPENRDSLGETDIDIATEDKSPVDT

TRTRPLE - GFP Tag - V

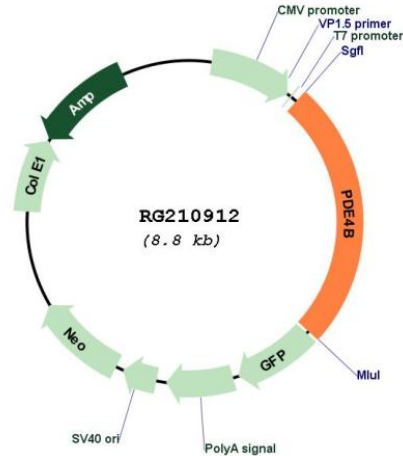
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001037341

ORF Size: 2208 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_001037341.1](#), [NP_001032418.1](#)

RefSeq Size: 4309 bp

RefSeq ORF: 2211 bp

Locus ID: 5142

UniProt ID: [Q07343](#)

Cytogenetics: 1p31.3

Protein Families: Druggable Genome

Protein Pathways: Progesterone-mediated oocyte maturation, Purine metabolism

Gene Summary: This gene is a member of the type IV, cyclic AMP (cAMP)-specific, cyclic nucleotide phosphodiesterase (PDE) family. The encoded protein regulates the cellular concentrations of cyclic nucleotides and thereby play a role in signal transduction. Altered activity of this protein has been associated with schizophrenia and bipolar affective disorder. Alternative splicing and the use of alternative promoters results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2014]