

Product datasheet for **RG218324**

PDE4 (PDE4B) (NM_001037339) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE4 (PDE4B) (NM_001037339) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDE4
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:

>RG218324 representing NM_001037339
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGGAGCACGGGGCACCTTCAGTAGCACCGGAATCAGCGGTGGTAGCGGTGACTCTGCTATGGACA
 GCCTGCAGCCGCTCCAGCCTAACTACATGCCTGTGTGTTGTTTGCAGAAGAATCTTATCAAAAATTAGC
 AATGGAACGCTGGAGGAATTAGACTGGTGTTTAGACCAGCTAGAGACCATACAGACCTACCGGTCTGTC
 AGTGAGATGGCTTCTAACAAAGTTCAAAGAATGCTGAACCGGGAGCTGACACACCTCTCAGAGATGAGCC
 GATCAGGGAACCAGGTGTCTGAATACATTTCAAATACTTTCTTAGACAAGCAGAATGATGTGGAGATCCC
 ATCTCCTACCCAGAAAGACAGGGAGAAAAAGAAAAGCAGCAGCTCATGACCCAGATAAGTGAGGTGAAG
 AAATTAATGCATAGTTCAAGCCTAAACAATAACAAGCATCTCACGCTTTGGAGTCAACACTGAAAAAGAAG
 ATCACCTGGCCAAGGAGCTGGAAGACCTGAACAAATGGGGTCTAACATCTTTAATGTGGCTGGATATTC
 TCACAATAGACCCCTAACATGCATCATGTATGCTATATCCAGGAAAGAGACCTCCTAAAGACATTCAGA
 ATCTCATCTGACACATTTATAACCTACATGATGACTTTAGAAGACCATTACCATTCTGACGTGGCATATC
 ACAACAGCCTGCACGCTGCTGATGTAGCCAGTCGACCCATGTTCTCCTTTCTACACCAGCATTAGACGC
 TGTCTTACAGATTTGGAGATCCTGGCTGCCATTTTGCAGCTGCCATCCATGACGTTGATCATCTGGA
 GTCTCCAATCAGTTTCTCATCAACACAAATTCAGAACTTGCTTTGATGTATAATGATGAATCTGTGTTGG
 AAAATCATCACCTTGCTGTGGGTTTCAAAGTCTGCAAGAAGAAGACTGTGACATCTTATGAATCTCAC
 CAAGAAGCAGCGTCAGACACTCAGGAAGATGGTTATTGACATGGTGTAGCAACTGATATGTCTAAACAT
 ATGAGCCTGCTGGCAGACCTGAAGACAATGGTAGAAAACGAAGAAAGTTACAAGTTCAGGCGTTCTTCTCC
 TAGACAACATAACCGATCGCATTACAGTCTCGCAACATGGTACACTGTGCAGACCTGAGCAACCCAC
 CAAGTCCTTGAATTGTATCGGCAATGGACAGACCGCATCATGGAGGAATTTTTCCAGCAGGGAGACAAA
 GAGCGGGAGAGGGGAATGGAATTAGCCCAATGTGTGATAAACACACAGCTTCTGTGAAAAATCCAGG
 TTGGTTTCATCGACTACATTGTCCATCCATTGTGGGAGACATGGGCAGATTTGGTACAGCCTGATGCTCA
 GGACATTTCTCGATACCTTAGAAGATAACAGGAAGTGGTATCAGAGCATGATACCTCAAAGTCCCTCACCA
 CCACTGGACGAGCAGAACAGGGACTGCCAGGGTCTGATGGAGAAGTTTTCAGTTTGAAGTACTCTCGATG
 AGGAAGATTCTGAAGGACCTGAGAAGGAGGGAGAGGGACAGCTATTTACAGCAGCACAAGACGCTTTG
 TGTGATTGATCCAGAAAACAGAGATTCCCTGGGAGAGACTGACATAGACATTGCAACAGAAGACAAGTCC
 CCCGTGGATACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG218324 representing NM_001037339
 Red=Cloning site Green=Tags(s)

MKEHGGTFSSTGISGGSGDSAMDSLQPLQPNYMPVCLFAEESYQKLAMETLEELDWCLDQLETIQTYRSV
 SEMASNKFKRMLNRELTHLSEMSRSGNQVSEYISNTFLDKQNDVEIPSPTQKDREKKKQQLMTQISGVK
 KLMHSSSLNNTSISRFGVNTENEDHLAKELEDLNKWLNIIFNVAGYSHNRPLTCIMYAIQERDLLKTFR
 ISSDTFITYMMTLEDHYHSDVAYHNSLHAADVAQSTHVLLSTPALDAVFTDLEILAAIFAAAIIHDVDHPG
 VSNQFLINTNSELALMYNDESVLENHHLAVGFKLLQEEHCDIFMNLTKKQRQTLRKMVIDMVLATDMSKH
 MSLLDLTKTMVETKKVTSVGVLNLDNYTDRIQVLRNMVHCADLSNPTKSLELYRQWTDRIEMEEFFQQGDK
 ERERGMEISPMCDKHTASVEKSQVGFIDYIVHPLWETWADLVQPDQDILDLEDNRNRYQSMIPQSPSP
 PLDEQNRDCQGLMEKQFELTLDEEDSEGPEKEGEGHSYFSSKTLCVIDPENRDSLGETDIDIATEDKS
 PVDT

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001037339

ORF Size: 1692 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_001037339.2](#)

RefSeq Size: 3882 bp

RefSeq ORF: 1695 bp

Locus ID: 5142

UniProt ID: [Q07343](#)

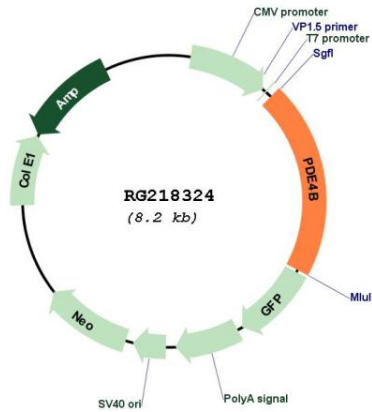
Cytogenetics: 1p31.3

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]

Product images:



Circular map for RG218324