

Product datasheet for **RG218375**

PDE4 (PDE4B) (NM_001037340) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE4 (PDE4B) (NM_001037340) 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:**

>RG218375 representing NM_001037340
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACAGCAAAGATTCTTCAAAGGAACCTACTGCTTCTGAACCTGAGGTTTGCATAAAGACTTTCAAGG
 AGCAAATGCATTTAGAACTTGAGCTTCCGAGATTACCAGGAAACAGACCTACATCTCCTAAAATTTCTCC
 ACGCAGTTCACCAAGGAACCTCACCATGCTTTTTTCAGAAAGTTGCTGGTGAATAAAAAGCATTTCGGCAGCGT
 CGTCGCTTCACTGTGGCTCATACATGCTTTGATGTGAAAATGGCCCTTCCCCAGGTCGGAGTCCACTGG
 ATCCCCAGGCCAGCTCTCCGCTGGGCTGGTACTTACGCCACCTTTCTGGGCACAGCCAGCGCAGAGA
 GTCATTTCTCTACAGATCAGACAGCGACTATGACTTGTCAACAAAGGCGATGTCGAGAAACTCTTCTCTT
 CCAAGCGAGCAACACGGCGATGACTTGATTGTAACCTCTTTGCCAGGTCCTTCCAGCTTGGCAAGTG
 TGAAAAACAACCTCACTATACTGACAAACCTTCATGGTACATCTAACAAGAGTCCCCAGCTGCTAGTCA
 GCCTCCTGTCTCCAGAGTCAACCCACAAGAAGAATCTTATCAAAAATTAGCAATGGAACCGTGGAGGAA
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 AGTTCAAAGAATGCTGAACCGGAGCTGACACACCTCTCAGAGATGAGCCGATCAGGGAACCGGTGTC
 TGAATACATTTCAAATACTTTCTTAGACAAGCAGAATGATGTGGAGATCCCATCTCTACCCAGAAAAGAC
 AGGGAGAAAAAGAAAAGCAGCAGCTCATGACCCAGATAAGTGGAGTGAAGAAAATTAATGCATAGTTCAA
 GCCTAAACAATACAAGCATCTCACGCTTTGGAGTCAACACTGAAAATGAAGATCACCTGGCCAAGGAGCT
 GGAAGACCTGAACAAATGGGGTCTTAACATCTTTAATGTGGCTGGATATTCTCACAATAGACCCCTAACA
 TACCTACATGATGCTATATTCCAGGAAAGAGACCTCCTAAAGACATTGAGAATCTCATCTGACACATTTA
 TGATGTAGCCCAGTCGACCCATGTTCTCCTTTCTACACCAGCATTAGACGCTGTCTTACAGATTTGGAG
 ATCCTGGCTGCCATTTTTGCAGCTGCCATCCATGACGTTGATCATCTCTGGAGTCTCCAATCAGTTTCTCA
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 CATTCAAGTCTTCGCAACATGGTACACTGTGCAGACCTGAGCAACCCCAAGTCTTGGAAATGAT
 CGGCAATGGACAGACCGCATCATGGAGGAATTTTCCAGCAGGGAGACAAAGAGCGGGAGAGGGGAATGG
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 TGTCCATCCATTGTGGGAGACATGGGCAGATTTGGTACAGCCTGATGCTCAGGACATTCTCGATACCTTA
 GAAGATAACAGGAACTGGTATCAGAGCATGATACCTCAAAGTCCCTCACCACCACTGGACGAGCAGAACA
 GGGACTGCCAGGGTCTGATGGAGAAGTTTCAGTTTGAACCTGACTCTCGATGAGGAAGATTCTGAAGGACC
 TGAGAAGGAGGGAGAGGGACACAGCTATTTCCAGCAGCACAAGACGCTTTGTGTGATTGATCCAGAAAAAC
 AGAGATTCCTGGGAGAGACTGACATAGACATTGCAACAGAAGACAAGTCCCCCGTGGATACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

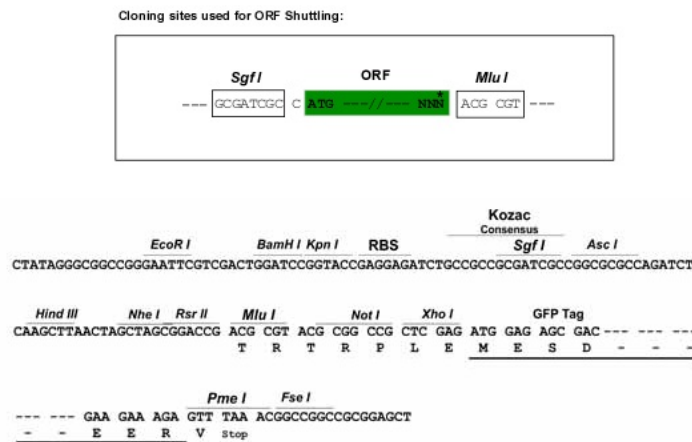
Protein Sequence: >RG218375 representing NM_001037340
Red=Cloning site Green=Tags(s)

MTAKDSSKELTASEPEVCIKTFKEQMHELELPRLPGNRPTSPKISPRSSPRNSPCFFRKLNVNKSIRQR
 RRF TVAHTCFDVENGPSGRSPLDPQASSAGLVLHATFPGHQSQRRESFLYRSDSDYDLSPKAMSRNSSL
 PSEQHGDDLIVTFFAQVLASLRSVRNNFTILTNLHGTSNKRSPAASQPPVSRVNPQEEESYQKLAMETLEE
 LDWCLDQLETIQTYRSVSEMASNKFKRMLNRELTHLSEMSRSGNQVSEYISNTFLDKQNDVEIPSPTQKD
 REKKKKQQLMTQISGVKMLMHSSSLNNTSISRFGVNTENEDHLAKELEDLNKRWGLNIFNVAGYSHNRPLT
 CIMYAIQERDLLKTRISSDTFITYMMTLEDHYHSDVAYHNSLHAADVAQSTHVLLSTPALDAVFTDLE
 ILAAIFAAAIHDVDHPGVSQFLINTNSELALMYNDESVLNHHLAVGFKLLQEEHCDIFMNLTKKQRQT
 LRKMVIDMVLATDMSKHMSSLLADLKTMMVETKKVTS SSVLLLDNYTDRIQVLRNMVHCADLSNPTKSELEY
 RQWTRIMEEFFQQGDKERERGMEISPMCDKHTASVEKSQVGFIDYIVHPLWETWADLVQPAQDILDTL
 EDNRNWFQSMIPQSPSPPLDEQNRDCQGLMEKFQFELTLDEEDSEGPEKEGEGHSYFSSTKTLCLVIDPEN
 RDSLGETDIDIATEDKSPVDT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001037340

ORF Size: 2163 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_001037340.2](#)

RefSeq Size: 4273 bp

RefSeq ORF: 2166 bp

Locus ID: 5142

UniProt ID: [Q07343](#)

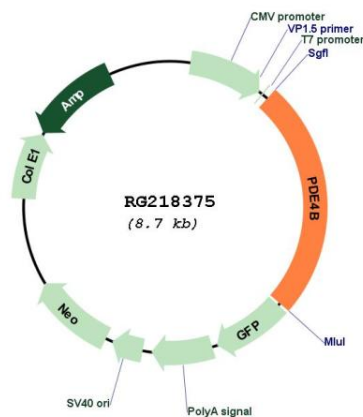
Cytogenetics: 1p31.3

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 RG218375