

Product datasheet for **RC210912**

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:	Myc-DDK
Symbol:	PDE4
Synonyms:	DPDE4; PDEIVB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC210912 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGAAGAAAAGCAGGAGTGTGATGACGGTATGGCTGATGATAATGTTAAAGATTATTTGAAATGTAGCT
TGAGTAAATCCTACAGTTCTCCAGTAACACACTTGGGATCGACCTCTGGAGAGGGAGAAGGTGTTGCTC
AGGAAACTTACAGTTACCACCACTGTCTCAAAGACAGAGTGAAAGGGCAAGGACTCCTGAGGGAGATGGT
ATTTCCAGGCCGACCACACTGCCTTTGACAACGCTTCCAAGCATTGCTATTACAACCTGTAAGCCAGGAGT
GCTTTGATGTGGAAAATGGCCCTTCCCCAGGTCGGAGTCCACTGGATCCCAGGCCAGCTCTTCCGCTGG
GCTGGTACTTCACGCCACCTTCTCTGGGCACAGCCAGCGCAGAGAGTCATTTCTACAGATCAGACAGC
GACTATGACTTGTACCAAAGGCGATGTCGAGAACTCTTCTCTCAAGCGAGCAACACGGCGATGACT
TGATTGTAACCTTTTCCAGGTCCTTGCCAGCTTGCAGAGTGTGAGAAACAACCTTACTATACTGAC
AAACCTTCATGGTACATCTAACAAGAGGTCCTCCAGCTGCTAGTCAGCCTCCTGTCTCCAGAGTCAACCCA
CAAGAAGAATCTTATCAAAAATTAGCAATGGAAACGCTGGAGGAATTAGACTGGTGTGTTAGACCAGCTAG
AGACCATACAGACCTACCGGTCTGTCAAGTGTGCTTCTAACAAGTTCAAAGAAATGCTGAACCGGGA
GCTGACACACCTCTCAGAGATGAGCCGATCAGGGAACAGGTGTCTGAATACATTTCAAATACTTTCTTA
GACAAGCAGAAATGATGTGGAGATCCCATCTCTACCCAGAAAGACAGGGAGAAAAAGAAAAAGCAGCAGC
TCATGACCAGATAAGTGGAGTGAAGAAATTAATGCATAGTTCAAGCCTAAACAATAACAAGCATCTCAGC
CTTTGGAGTCAACACTGAAAATGAAGATCACCTGGCCAAGGAGCTGGAAGACCTGAACAAATGGGGTCTT
AACATCTTTAATGTGGCTGGATATTCTCACAATAGACCCTAACATGCATCATGTATGCTATATCCAGG
AAAGAGACCTCCTAAAGACATTCAGAATCTCATCTGACACATTTATAACCTACATGATGACTTTAGAAGA
CCATTACCATTCTGACGTGGCATATCACAAACAGCCTGCACGCTGCTGATGTAGCCCAAGTCCGACCCATGTT
CTCCTTTCTACACCAGCATTAGACGCTGTCTTACAGATTTGGAGATCCTGGCTGCCATTTTTCAGCTG
CCATCCATGACGTTGATCATCTGGAGTCTCCAATCAGTTTCTCATCAACACAAATTCAGAACTTGCTTT
GATGTATAATGATGAATCTGTGTTGGAAAATCATCACCTTGCTGTGGGTTTCAAACCTGCTGCAAGAAGAA
CACTGTGACATCTTCATGAATCTACCAAGAAGCAGCGTCAGACACTCAGGAAGATGGTTATTGACATGG
TGTTAGCAACTGATATGTCTAACATATGAGCCTGCTGGCAGACCTGAAGACAATGGTAGAAACGAAGAA
AGTTACAAGTTCAGGCGTTCTTCTCCTAGACAATAACCGATCGCATTAGGTCCTTCGCAACATGGTA
CACTGTGACAGCTGAGCAACCCACCAAGTCCTTGAATGTATCGGCAATGGACAGACCGCATATGG
AGGAATTTTCCAGCAGGGAGACAAGAGCGGGAGAGGGGAATGGAAATTAGCCCAATGTGTGATAAACA
CACAGCTTCTGTGAAAAATCCCAGGTTGGTTTCATCGACTACATTGTCCATCCATTGTGGGAGACATGG
GCAGATTTGGTACAGCCTGATGCTCAGGACATTCTCGATACCTTAGAAGATAACAGGAACTGGTATCAGA
GCATGATACCTCAAAGTCCCTCACCACCACTGGACGAGCAGAACAGGGACTGCCAGGGTCTGATGGAGAA
GTTTCAGTTTGAAGTACTCTCGATGAGGAAGATTCTGAAGGACCTGAGAAGGAGGGAGAGGGACACAGC
TATTTACGAGCACAAGACGCTTTGTGTGATTGATCCAGAAAACAGAGATTCCCTGGGAGAGACTGACA
TAGACATTGCAACAGAAGACAAGTCCCCGTGGATACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210912 protein sequence
 Red=Cloning site Green=Tags(s)

MKKSRSVMTVMADDNVKDYFECSLSKSYSSSSNTLGIDLWRGRRCCSGLQLPPLSQRQSERARTPEGDG
 ISRPTTLPLTTLPSIAITTVSQECFDVENGPSPGRSPLDPQASSAGLVLHATFPGHSSQRRESFLYRSDS
 DYDLSPKAMSRNSSLPSEQHGDDLIVTTPFAQVLAASLRVSRNNTILTNLHGTSNKRSPAASQPPVSRVNP
 QEESYQKLAMETLEELDWCLEDQLETIQTYRSVSEMASNFKRMLNRELTHLSEMSRSGNQVSEYISNTFL
 DKQNDVEIPSPQDKREKKKKQQLMTQISGVKMLMHSSSLNNTSISRFGVNTENEDHLAKELEDLNKWL
 NIFNVAGYSHNRPLTCIMYAIQERDLLKTFRISSDTFITYMMTLEDHYHSDVAYHNSLHAADVAQSTHV
 LLSTPALDAVFTDLEILAAIFAAAIIHDVDHPGVSNQFLINTNSELALMYNDESVLENHHLAVGFKLLQEE
 HCDIFMNLTKKQRQTLRKMVIDMVLATDMSKHMSLLADLKTMTVETKKVTSSGVLNLDNYTDRIQVLRNMV
 HCADLSNPTKSLLEYRQWTDRIEMEEFFQQGDKERERGMEISPMCDKHTASVEKSQVGFIDYIVHPLWETW
 ADLVQPDADILDLEDRNRWYQSMIPQSPPLDEQNRDCQGLMEKQFELTLDEEDSEGPEKEGEGHS
 YFSSTKTLVIDPENRDSLGETDIDIATEDKSPVDT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6692_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001037341

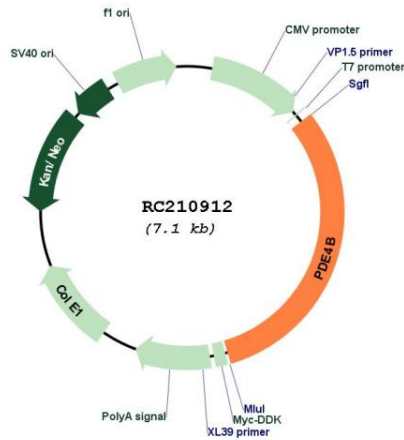
ORF Size: 2208 bp

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](#)

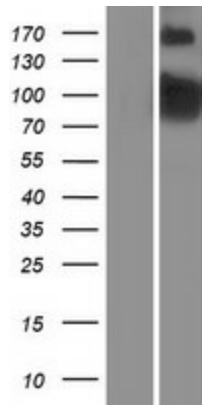
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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:	<u>NM_001037341.1, NP_001032418.1</u>
RefSeq Size:	4309 bp
RefSeq ORF:	2211 bp
Locus ID:	5142
UniProt ID:	<u>Q07343</u>
Cytogenetics:	1p31.3
Protein Families:	Druggable Genome
Protein Pathways:	Progesterone-mediated oocyte maturation, Purine metabolism
MW:	83.3 kDa
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]

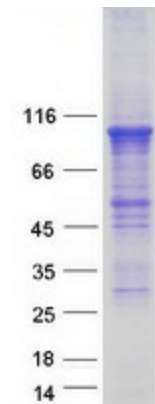
Product images:



Circular map for RC210912



Western blot validation of overexpression lysate (Cat# [LY421908]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210912 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDE4B protein (Cat# [TP310912]). The protein was produced from HEK293T cells transfected with PDE4B cDNA clone (Cat# RC210912) using MegaTran 2.0 (Cat# [TT210002]).