

## Product datasheet for **RC212410**

### **PDE4D (NM\_006203) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE4D (NM_006203) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE4D
Synonyms:	ACRDYS2; DPDE3; HSPDE4D; PDE4DN2; PDE43; STRK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC212410 representing NM\_006203  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCACGTGAATAATTTTCCCTTTAGAAGGCATTCTGGATATGTTTTGATGTGGACAATGGCACATCTG  
CGGGACGGAGTCCCTTGATCCCATGACCAGCCAGGATCCGGGCTAATTCTCCAAGCAAATTTGTCCA  
CAGTCAACGACGGGAGTCCCTCCTGTATCGATCCGACAGCGATTATGACCTCTCTCCAAAGTCTATGTCC  
CGGAACCTCCATTGCCAGTGATATACACGGAGATGACTTGATTGTGACTCCATTTGCTCAGGTCTTGG  
CCAGTCTGCGAACTGTACGAAACAACCTTGTGCTGCACTAACTAATTTGCAAGATCGAGCACCTAGCAAAG  
ATCACCCATGTGCAACCAACCATCCATCAACAAAGCCACCATAACAGAGGAGGCCACCAGAAATGGCC  
AGCGAGACCTGGAGGAGCTGGACTGGTGTCTGGACCAGCTAGAGACCCTACAGACCAGGCACTCCGTCA  
GTGAGATGGCCTCCAACAAGTTAAAAGGATGCTTAATCGGGAGCTCACCCATCTCTGAAATGAGTCCG  
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TCTCCAACCTCAGAAGGAAAAGGAGAAAAAGAAAGACCAATGTCTCAGATCAGTGGAGTCAAGAAATTTGA  
TGCACAGCTCTAGTCTGACTAATCAAGTATCCCAAGTTTGGAGTTAAAAGTGAACAAGAAGATGTCTCT  
TGCCAAGGAACTAGAAGATGTGAACAAATGGGGTCTTCATGTTTTCAGAAATAGCAGAGTTGTCTGGTAAC  
CGGCCCTTGACTGTTATCATGCACACCATTTTTAGGAACGGGATTTATTAACAAATTTAAATTTCCAG  
TAGATACTTTAATTACATATCTTATGACTCTCGAAGACCATTACCATGCTGATGTGGCCTATCACAACAA  
TATCCATGCTGCAGATGTTGTCCAGTCTACTCATGTGCTATTATCTACACCTGCTTTGGAGGCTGTGTTT  
ACAGATTTGGAGATCTTGCAGCAATTTTGGCAGTGAATACATGATGTAGATCATCCTGGTGTGCCA  
ATCAATTTCTGATCAATACAAACTCTGAACCTTGCCTTGATGACAATGATTCTCAGTCTTAGAGAACCA  
TCATTTGGCTGTGGGCTTTAAATTTGCTTCAGGAAGAAAAGTGTGACATTTTCCAGAATTTGACCAAAAA  
CAAAGACAATCTTTAAGGAAAATGGTCATTGACATCGTACTTGCAACAGATATGTCAAAAACATGAATC  
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TTATTCGATAGGATTCAGGTTCTTCCAGAAATGGTGCCTGTGACAGATCTGAGCAACCCAAACAAAGCCT  
CTCCAGCTGTACCGCCAGTGGACGGACCGGATAATGGAGGAGTTCTTCCGCCAAGGAGACCGAGAGAGGG  
AACGTGGCATGGAGATAAGCCCCATGTGTGACAAGCACAATGCTTCCGTGGAAAATCACAGGTGGGCTT  
CATAGACTATATTGTTTATCCCCTCTGGGAGACATGGGCAGACCTCGTCCACCCTGACGCCCAGGATATT  
TTGGACACTTTGGAGACAATCGTGAATGGTACCAGAGCACAATCCCTCAGAGCCCTCTCCTGCACCTG  
ATGACCCAGAGGAGGGCCGGCAGGGTCAAACCTGAGAAATTCAGTTTGAACCTAATTTAGAGGAAGATGG  
TGAGTCAGACACGAAAAGGACAGTGGCAGTCAAGTGAAGAAGACACTAGCTGCAGTACTCAGAACT  
CTTTGACTCAAGACTCAGAGTCTACTGAAATCCCCTTGATGAACAGGTTGAAGAGGAGGACAGTAGGGG  
AAGAAGAGGAAAAGCCAGCCTGAAGCCTGTGTCATAGATGATCGTTCTCCTGACACG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212410 representing NM\_006203  
Red=Cloning site Green=Tags(s)

MHVNNFPFRHSWICFDVDNGTSAGRSPLDPMTSPGSGLIILQANFVHSQRRESFLYRSDSDYDLSPKSMS  
 RNSSIASDIHGDDLIVTFFAQLVSLRTRVNNFAALTNLQDRAPSKRSPMCNQPSINKATITEEAYQKLA  
 SETLEELDWCQLETLQTRHSVSEMASNFKRMLNRELTHLSEMSRSGNQVSEFISNTFLDKQHEVEIP  
 SPTQKEKEKKRPMISQISGVKKLMHSSSLTNSSIPRFGVKTEQEDVLAKELDVNKGWGLHVFRIELSGN  
 RPLTVIMHTIFQERDLLKTFKIPVDLTLITYLMTLEDHYHADVAYHNNIHAADVQSTHVLLSTPALEAVF  
 TDLEILAAIFASAIHDVDHPGVSNQFLINTNSELALMYNDSSVLENHHLAVGFKLLQEENCDFQNLTKK  
 QRQSLRKMVIDIVLATDMSKHMNLLADLKTMTVETKVTSSGVLLLDNYSDRIQVLQNMVHCADLSNPTKP  
 LQLYRQWTDRIEEMFFRQGDREMERGMEISPMCDKHNASVEKSQVGFIDYIVHPLWETWADLVHPDAQDI  
 LDTLEDNREWYQSTIPQSPAPDDPEEGRQGQTEKFQFELTLEEDGESDTEKDSGSQVEEDTSCSDSKT  
 LCTQDSESTEIPLDEQVEEEAVGEEESQPEACVIDDRSPDT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2722\\_b05.zip](https://cdn.origene.com/chromatograms/mg2722_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006203

**ORF Size:** 2016 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\\_006203.5](#)

**RefSeq Size:** 5876 bp

**RefSeq ORF:** 2022 bp

**Locus ID:** 5144

**UniProt ID:** [Q08499](#)

**Cytogenetics:** 5q11.2-q12.1

**Domains:** PDEase

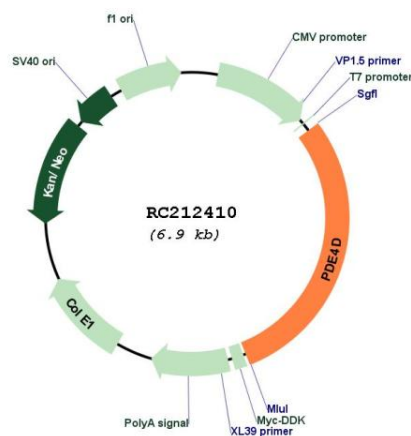
**Protein Families:** Druggable Genome

**Protein Pathways:** Progesterone-mediated oocyte maturation, Purine metabolism

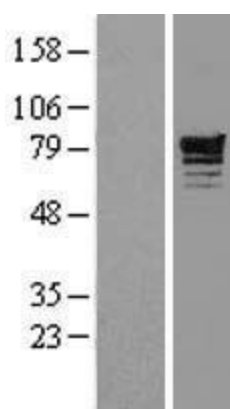
**MW:** 76.3 kDa

**Gene Summary:** This gene encodes one of four mammalian counterparts to the fruit fly 'dunce' gene. The encoded protein has 3',5'-cyclic-AMP phosphodiesterase activity and degrades cAMP, which acts as a signal transduction molecule in multiple cell types. This gene uses different promoters to generate multiple alternatively spliced transcript variants that encode functional proteins.[provided by RefSeq, Sep 2009]

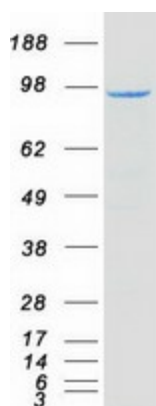
### Product images:



Circular map for RC212410



Western blot validation of overexpression lysate (Cat# [LY401868]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212410 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDE4D protein (Cat# [TP312410]). The protein was produced from HEK293T cells transfected with PDE4D cDNA clone (Cat# RC212410) using MegaTran 2.0 (Cat# [TT210002]).