

Product datasheet for **RC217016**

PDE12 (NM_177966) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE12 (NM_177966) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE12
Synonyms:	2'-PDE; 2-PDE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC217016 representing NM_177966
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTGGAGGCTCCAGGCGCCGCGCGCTTCGGGTGATCCGGACGGCGGTGGAGAAGCTGAGCCGGG
 CTGAAGCGGGGAGCCAGACAGCGCGGGAGCGATGGAGCGCGCTGTAGTGCCTGCTACCTTCGGAACC
 CAAGCTGAGCCTGTCAATTCGCTTTGGCTGATGGTAGCCACAAGAACATGCAGCGCACCAGAGCGAGCCG
 CTGGGTCGAGTCTCAGCCGCATCGCTACCAATGCCCTAAAGGGTCACGCTAAGCGCGCCGCCCAAGA
 AGAGCAGGAAGAGCCGGCCGAATGCTAGCGGGCTGCGGCCTGTTAGGGCCGGGCTGAGCCGGCTGT
 GTTCTGCGAGCCCGTGGTGAAGCTGTACTACGGGAAGAGGCAGTGGCTGAGGACGTGCTCAACGTGGAT
 GCCTGGCAAGACGGCGCGGTGCTGCAGATCGGCGATGTTAAGTACAAGGTGGAGCGCAACCCGCCCGCT
 TCACCGAACTGCAGTTGCCGCGCTACATCATGGCCGGTTCCTGTGTGCCCAAACCTCAGCCTCGAATT
 TGGGGATCCCGCCAGCTCCCTTTCCGCTGGTATAAGGAAGCCAAGCCCGGAGCGCGGAGCCCGAGGTC
 GGTGTCCCTCGTCATTGTCTCCCTCCTCACCTTCTTCTTGGACTGAGACTGATGTGGAGGAGCGTG
 TCTACACCCCGTCCAATGCCGACATCGGGCTAAGGCTCAAGCTTCACTGCACCCAGGCGATGGGCAGCG
 CTTTGGGCACAGCCGGGAGTTGGAAAGTGTGTGTGGTGTAGAGGCTGGGCTGGCACCTGCACTTTTGAC
 CACCGCATCTCTACACGAAGAAGGTGACTGAGGACGCTCTCATCCGCACTGTCTTTACAACATCCTGG
 CAGACAGTACGCGCAGACTGAGTTCTCGCAACGGTTCTGTACCCATACTGTGCCCCCTACGCCCTGGA
 GCTCGACTACCGCCAGAACCTTATCCAGAAGGAACTACCGGCTACAACGCCGATGTCATCTGTTTGCAG
 GAGGTTGACCGCAGTGTTTCTGACAGCTTGGTACCCGCCCTAGAGGCTTCGGGCTCGAGGGGGTGT
 TTCGAATCAAGCAGCAGCAAGGCTGGCCACTTCTACCGAAAGTCTAAGTTACGCTTCTTAGCCAGCA
 TGACATTTCAATCTACGAAGCCCTCGAGTCCGACCCACTTCACAAAGAAGTCTGGAGAAACTAGTTTTG
 TACCCATCAGCGCAGGAGAAGGTGCTCCAGAGATCTTCTGTTCTTCAAGTTTTAGTTCTTCACTACAA
 AGGACTCTTAAAAGGATATGTGTTGCTAATACCCATCTTACTGGCATCCTAAAGGTGGGTATATTTCG
 CCTCATCAAAATGGCAGTAGCCTTGGCTCACATAAGACATGTTTCATGTGATCTGTATCCTGGCATACCA
 GTTATATTTTGTGGGACTTTAATAGTACACCATCAACAGGAATGTATCATTGTTGTCATCAATGGCAGCA
 TTCCAGAGGATCATGAAGACTGGGCTTCCAATGGGAGGAGGAAAGATGCAATATGTCTCTTACACATTT
 CTTCAAGCTGAAAAGTGTGTGGTGAACCTGCTTACACAAATTATGTTGGTGGCTTTCATGGATGTCTA
 GATTACATTTTTCATTGACTTAAATGCTTTAGAGGTTGAACAGGTGATTCCATTACCTAGTCATGAAGAAG
 TTACCACCCAGGCGCTTACCTAGTGTTCCTATCCCTCTGATCACATAGCACTGTATGTGATTTAA
 ATGGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217016 representing NM_177966
 Red=Cloning site Green=Tags(s)

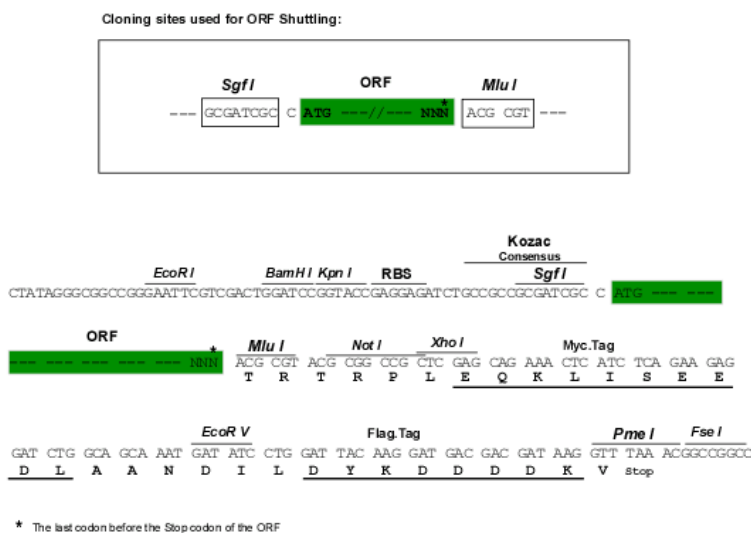
MWRLPGARAALRVIRTAVEKLSRAEAGSQTAAGAMERAVVRCVPSEPKLSL SFALADGSHKNMQRDQSEP
 LGRVLSRIATNALKGHAKAAAANKSRKSRPNASGGAACSGPPEPAVFCEPVVKLYYREEAVAEDVLNVD
 AWQDGAFLQIGDVKYKVERNPPAFTELQLPRYIMAGFPVCPKLSLEFGDPASSLFRWYKEAKPGAAEPEV
 GVPSSLSPSSPSSWTE TDVEERVYTPSNADIGLRRLKLHCTPGDQRFQHSRELESVCVVEAGPGTCTFD
 HRHLYTKKVTEDALIRTVSYNILADTYAQTEFSRTVLYPYCAPYALELDYRQNL IQKELTGYNADVICLQ
 EVDRAVFSDSLVPALAEAFGLEGVFRKQHEGLATFYRKSFLSLSQHDISFYEALES DPLHKELLEKLV
 YPSAQEKVLRSSVLQVSVLQSTKDSKRICVANHTLYWHPKGGYIRLIQMAVALAHIRHVSCDLYPGIP
 VIFCGDFNSTPSTGMYHFVINGSIPEDHEDWASNGEEERCNMSLTHFFKLKSACGEPAYTNYVGGFHHGL
 DYIFIDLNALEVEQVIPLPSHEEVTTHQALPSVSHPSDHIALVCDLKWK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8017_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_177966

ORF Size: 1827 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

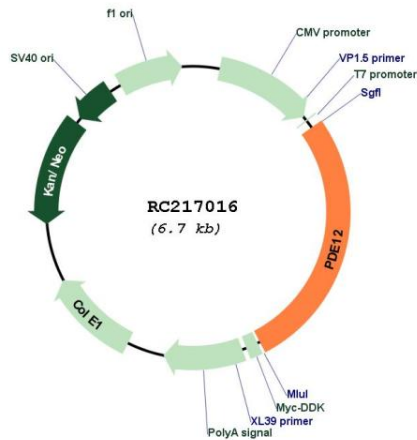
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

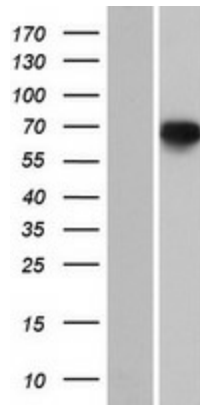
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_177966.7
RefSeq Size:	3923 bp
RefSeq ORF:	1830 bp
Locus ID:	201626
UniProt ID:	Q6L8Q7
Cytogenetics:	3p14.3
MW:	67.2 kDa
Gene Summary:	Enzyme that cleaves 2',5'-phosphodiester bond linking adenosines of the 5'-triphosphorylated oligoadenylates, triphosphorylated oligoadenylates referred as 2-5A modulates the 2-5A system. Degrades triphosphorylated 2-5A to produce AMP and ATP (PubMed:26055709). Also cleaves 3',5'-phosphodiester bond of oligoadenylates (PubMed:21666256, PubMed:30389976, PubMed:26055709). Plays a role as a negative regulator of the 2-5A system that is one of the major pathways for antiviral and antitumor functions induced by interferons (IFNs). Suppression of this enzyme increases cellular 2-5A levels and decreases viral replication in cultured small-airway epithelial cells and Hela cells (PubMed:26055709).[UniProtKB/Swiss-Prot Function]

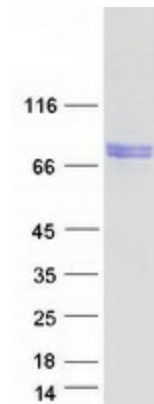
Product images:



Circular map for RC217016



Western blot validation of overexpression lysate (Cat# [LY406061]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217016 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDE12 protein (Cat# [TP317016]). The protein was produced from HEK293T cells transfected with PDE12 cDNA clone (Cat# RC217016) using MegaTran 2.0 (Cat# [TT210002]).