

Product datasheet for **RR200273**

Pde2a (NM_031079) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pde2a (NM_031079) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pde2a
Synonyms:	CGS-PDE; Pde2; Pde2a2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RR200273 representing NM_031079
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCCTGGTGTTCACCACATCCTCATCGTGTGTCCAATTCTCAGCGGGGCCAGCAGGTCTTCC
 TCAAGCCGGACGAACCGCGCCGAGCCATGCGCCGACAGCCTGCAGGATGCTTTGCTGAGCCTGGGCGC
 CGTTATCGACATCGCGGGCCTTCGACAGGCTGCCAAGGATGCCCTCTCGGCCGTGCTCCCAAAAGTGAG
 ACTGTCTACACCTACCTGGTAGATGGGAGTCCAGGCTGGTGTGTGAGGACCCCTCATGAGCTGCCAC
 AGGAAGGAAAAATTCGAGAGGCTGTGATTTCTCGGAAGCGGCTGAGCTGCGATGGGCTGGACCTTCAGA
 CCTACTAGGAAAGCCCTTGCCAGGCTGGTGGCTCCACTGGCCCTGACACGCAAGTGTGGTCAATCC
 CTGCTGGACAAGGAGACTGGAAGTGTGGCAGCCGTCATCTGGTGCAGTGTGGCCAGCTGAGTGACAGTG
 AGGAGCAGAGCCTGCAGGTGGTGGAGAAGCATGCTCTGGTGGCCCTGCAGAGGGTGCAGGCCCTGCAGCA
 GCGCAGGCCTGAAGCTGTTCAAGAACCTCAGCGGATCCCTCTGAAGATCAAAGGATGAGAAGGGATAC
 ACCGCCATGACCGAAAGATCCTGCAACTGTGTGGAGAAGTCTATGACTTGGATGCCACTTCTCTGCAGC
 TCAAAGTCCTTCGATATCTTCAGCAGGAGACACAGGCCACTCACTGCTGCCTCCTGCTGGTGTGAGAGGA
 CAACCTGCAGCTTCTGCAAGGTCAATTGGAGAGAAAGTCTGGGAGAAGAGGTGAGCTTCCATTGACC
 ATGGGACGCCTGGGCCAGGTGGTGGAGGACAAACAGTGTATCCAGTTGAAGGACCTAACCTCTGACGATG
 TGCAACAGCTACAAAACATGTTGGGCTGTGAGCTTCGGGCTATGCTATGTGTCCCTGTATCAGTCGAGC
 CACTGACAGGTGGTGGCCCTGGCTTGGCCCTCAACAAGCTTGGAGGAGACTTCTTACAGATGAGGAT
 GAACGTGCGATCAACACTGCTTCCACTACACAGGCACGGTCTCACCAGTACCTTGGCCTTCCAGAAGG
 AGCAGAAGCTCAAGTGTGAGTGCCAGGCTCTTCCAAGTGGCAAAGAACCTTTCACCCACCTGGATGA
 CGTCTCTGCTGCTACAGGAGATCATCACAGAGGCCAGAAACCTCAGCAACGCAGAGATCTGCTCCGTG
 TTCTGCTGGATCAGAATGAGCTGGTTGCCAAGGTGTTGATGGCGGTGTAGTGGACGATGAGAGTTATG
 AGATCCGCATCCCTGCGGACCAAGGCATCGCGGCCACGTGGCGACCACGGGCCAGATCCTGAACATCCC
 AGATGCATACGCCATCCGCTTTTCTATCGCGGCTAGACGACAGCACTGGCTTCCGCACGCGCAACATT
 CTCTGCTTCCCTATCAAGAACGAGAACCAAGAGGTATCGGTGTGGCTGAGCTAGTGAACAAGATCAATG
 GGCCATGGTTCCAGCAATTTGATGAGGACCTGGCCACAGCCTTCTCCATCTACTGTGGCATTAGCATCGC
 TCACTCTCTCTATACAAAAAGGTGAATGAAGCCAGTACCGCAGCCACCTGGCCACGAGATGATGATG
 TACCATATGAAGTCTCTGACGATGAATACACCAAATCTCCATGATGGCATCAACCTGTGGCCGCCA
 TTGACTCCAATTTGCCAATTCACCTATACTCCTCGGTCTCTGCCTGAGGACGATACTTCTATGGCCAT
 CCTGAGCATGCTGCAAGACATGAAGTTCATCAATAACTACAAAATTGACTGCCCAACTCTGGCCCGGTT
 TGCTGATGGTGAAGAAAGGCTACCGGGATCCGCCCTACCACAAGTGGATGCACGCCCTTCTGTCTCTC
 ACTTTTGTACTTGTCTACAAGAACTGGAGCTCTCAAACCTCGAGGACATCGAGATCTTTGCGTT
 GTTTATTTCTGCATGTGTACAGCTGGACCACAGAGGCACAAACAACCTCTCCAGGTGGCCTCGAAA
 TCTGTGCTGGCTGCACTCTACAGCTCAGAGGGCTCTGTATGGAGAGGCACCCTTTGCTCAGGCCATTG
 CTATCTCAACACCCATGGCTGTAATATCTTTGACCCTCTCTCGGAAGGACTATCAGCGAATGCTGGA
 CCTGATGAGGGACATCATCTTGGCCACGGACCTGGCACACCACCTCCGCATCTCAAGGACCTGCAAGA
 ATGGCTGAAGTGGGTTATGACCGAAACAACAAGCAACACACAGGCTTCTTCTATGCCTCCTTATGACCT
 CCTGTGACCTCTCTGACCAGACAAGGGCTGGAAGACCACAGAAAGATTGCGGAGCTGATCTACAAGA
 GTTCTTCTCCAAAGGAGACTTGGAGAAGGCCATGGCAACCGACCAATGGAGATGATGGATCGGGAGAAG
 GCCTACATCCCTGAAGTTCAGATCAGCTTTATGGAGCACATCGCCATGCCCATCTACAAGCTGTTACAAG
 ACCTGTTCCCAAGGCAGCAGAGCTGTATGAACGCGTGGCCTCCAATCGTGAAGTGGACCAAGGTGTC
 CCACAAGTTCACCATCCGAGGCCTCCCAAGTAACTCGCTGGATTTCTGGATGAGGAATATGAGGTC
 CCTGATTTGGACGTCACCAGGGCTCCTGTCAATGGCTGCTGCAGCCTCGAGGGC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200273 representing NM_031079
 Red=Cloning site Green=Tags(s)

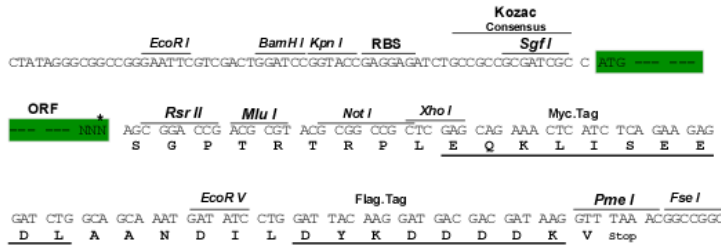
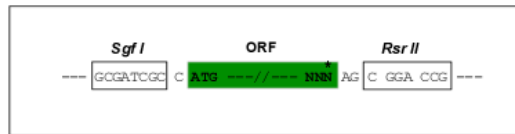
MVLVHHILIAVVQFLRRGQVFLKPEPPPQPCADSLQDALLSLGAVIDIAGLRQAAKDALSAVLPKVE
 TVYTYLVDGESRLVCEDPPHELPEQEKIREAVISRKRLSCDGLGPSDLLGKPLARLVAPLAPDTQVLVIP
 LLDKETGTVAAVILVHCGQLSDSEEQSLQVVEKHALVALQRVQALQRRPEAVQNTSADPSEDQKDEKGY
 TAHDRKILQLCGELYDLDATSLQLKVLRYLQETQATHCCLLLVSEDNLQLSCKVIGEKVLGEEVSFPLT
 MGRLGQVVEDKQCIQLKDLTSDDVQQLQNMGLGCELRAMLCPVVISRATDQVVALACAFNKLGGDFDDED
 ERAIQHCFHYTGTVLSTLAFQKEQKLKCECQALLQVAKNLFTHLDDVSVLLQEIITEARNLSNAEICSV
 FLLDQNELVAKVFDGGVVDDESYEIRIPADQGIAGHVATTGQILNIPDAYAHPLFYRGVDDSTGFRTRNI
 LCFPIKNENQEVIGVAELVNKINGPWFSKFDEDLATAFSIYCGISIAHLLYKKVNEAQYRSHLANEMMM
 YHMKVSDEYTKLLHDGIQPVAAIDSNFANFTYTPRSLPEDDTSMAILSMLQDMNFINNYKIDCPTLARF
 CLMVKKGYRPPYHNWMAFVSHFCYLLYKNLELSNYLEDIEIFALFISCMCHDLDRGTNNSFQVASK
 SVLAALYSSEGSVMERHHFAQAIILNTHGCNIFDHF SRKDYQRMLDLMRDII LATDLAHLRIFKDLQK
 MAEVGYDRNNKQHHRLLLCCLMTSCDLSDQTKGWKTTRKIAELIYKEFFSQGDLEKAMGNRPMEMMDREK
 AYIPELQISFMEHIAMPIYKLLQDLFPKAAELYERVASNREHWTKVSHKFTIRGLPSNNSLDFLDEEYEV
 PDLDVTRAPVNGCCSLEG

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

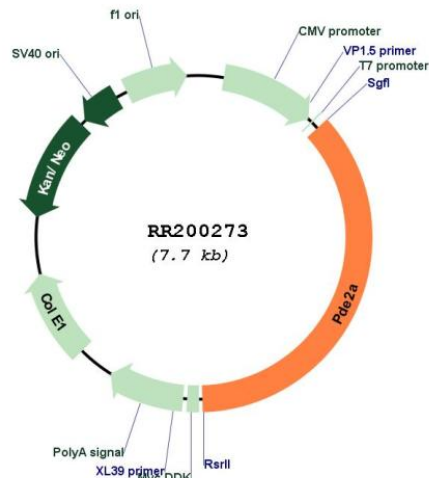
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_031079

ORF Size: 2784 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_031079.1](#), [NP_112341.1](#)

RefSeq Size: 3980 bp

RefSeq ORF: 2787 bp

Locus ID: 81743

UniProt ID: [Q01062](#)

Cytogenetics: 1q32

MW: 104.7 kDa

Gene Summary: activation induces decreased cAMP accumulation; involved in nitric oxide mediated signaling in cardiac fibroblasts [RGD, Feb 2006]