

## Product datasheet for **MC204906**

### **Pde9a (NM\_008804) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pde9a (NM_008804) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pde9a
Synonyms:	PDE9A1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC061163  
 AAGGTGAAAAAGTCCAAGTGCAGCTGCGGGCGCGATGGGGCCGGCTCCTCAAGCTACCGGCCAAAGGCC  
 ATCTACCTAGACATCGATGGACGCATCCAGAAGTGGTTTTTCAGCAAGTACTGCAACTCCAGTGACATCA  
 TGGACCTGTTCTGTATCGCCACCGGCCTGCCTCGGAACACCACCATCTCCCTTTTAAACCAGACGACGC  
 CATGGTCTCCATCGATCCCACCATGCCTGCGAATTCAGAGCGCACTCCCTACAAGGTGAGACCTGTGGCT  
 GTAAGCAAGTGTCTGAACGAGAAGAATTATCCAGGGCGTGTGGCCAGGTGGCGAAACAATTTTCCA  
 GAGCGTTTAAAGATCAACGAGCTGAAAGCCGAAGTTGCAAATCACCTGGCCGTGCTGGAGAACGGGTGGA  
 ATTGGAAGGACTTAAAGTGGTGGAGATCGAAAAATGCAAGAGTGACATTAAGAAAGATGCGGGAGGAGTTG  
 GCAGCTAGGAACAGCAGGACCAACTGTCCATGTAATACAGTTTTTTGGATAACAAGAAGTTGACACCTC  
 GACGTGATGTCCCACTTACCCCAAGTACTGCTCTCCCAAGAGACCATCGAAGCCCTACGGAAGCCAC  
 CTTTGATGTCTGGCTTTGGGAACCAACGAGATGCTGAGCTGTTTGAACATATGTACCAGACCTTGGT  
 CTGGTCAGGGACTTACGATCAACCAATCACGCTCCGACGGTGGCTGCTCTGTGTGCATGACAACATA  
 GGAACAACCCCTCCACAATCCGGCACTGCTTCTGTGTGACACAGATGATGTACAGTATGGTCTGGCT  
 CTGTGGCTCCAGGAGAAGTTTTCCAGATGGACATCTTGGTCTGATGACTGCAGCCATCTGCCATGAC  
 CTGGACACCCAGGTACAACAATACATACCAGATCAATGCCCGACGGAACCTCGCTGTGGCTACAACG  
 ACATCTCACCGCTGGAGAACCACCACTGCGCCATTGCCTTCCAGATCCTGCAAGACCTGAGTGCAACAT  
 CTTCCGCAAGTGTGCCACCCGAGGGCTTCAGGCAGATCAGGCAGGGGATGATCACATTGATCCTGGCTACC  
 GACATGGCAAGGCATGCTGAAATTATGGATTCTTTCAAAGAAAAGATGGAGAATTTTACTACAGCAACG  
 AGGAGCACCTGACCTGCTGAAGATGATTCATATAAAATGCTGTGATATCTCCAATGAAGTCCGTCACAT  
 GGAGGTGGCAGAACCGTGGTGGACTGTTTACTGGAAGAATATTTTATGCAGAGTGACCGTGAGAAGTCC  
 GAAGGCCCTTCTGTGGCCCCATTCATGGACCGAGACAAAGTGACCAAGCAACAGCCAAATTTGGTTCA  
 TCAAGTTTGTCTGATCCCAATGTTTGAACAGTGACCAAGCTCTTCCCGTTGTTGAGGAGACCATGCT  
 CGGGCCGCTCTGGGAGTCCCGAGAACACTACGAGGAGCTGAAGCAGCTGGACGATGCCATGAAGGAGTTG  
 CAGAAGAAGACAGAGAGCTTAACATCTGGGGCCCGAAAAACACCACAGAGAAGAACAGAGATGCAAAAG  
 ACAGTGAAGGCCATTCTCTCCAAACTGATGGACATCTCAATGTGTGCAACTGTACCAGTTAGAGCAGAT  
 GAATTGTGGCCTGTGAGTGGACAGGCAAGCGAGGCTTCCAGGATCTCCACACAAGGATGGTCACGC  
 CCAGACGACCCCTGATGACCTGTACAGACCATGTTTTCTAAGAACCATTTTGTCACTGATATAAAAAAC  
 AGGAATTCACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Sfil-Sfil

**ACCN:** NM\_008804

**Insert Size:** 1605 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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:** [BC061163](#), [AAH61163](#)

RefSeq Size: 1860 bp

RefSeq ORF: 1605 bp

Locus ID: 18585

UniProt ID: [O70628](#)

Cytogenetics: 17 B1

**Gene Summary:** Specifically hydrolyzes the second messenger cGMP, which is a key regulator of many important physiological processes (PubMed:9624145). Highly specific: compared to other members of the cyclic nucleotide phosphodiesterase family, has the highest affinity and selectivity for cGMP. Specifically regulates natriuretic-peptide-dependent cGMP signaling in heart, acting as a regulator of cardiac hypertrophy in myocytes and muscle. Does not regulate nitric oxide-dependent cGMP in heart (PubMed:25799991). Additional experiments are required to confirm whether its ability to hydrolyze natriuretic-peptide-dependent cGMP is specific to heart or is a general feature of the protein (Probable). In brain, involved in cognitive function, such as learning and long-term memory (PubMed:22328573, PubMed:24746365).[UniProtKB/Swiss-Prot Function]  
Transcript Variant: This variant (1) represents the longer transcript. Both variants 1 and 2 encode the same protein.