

## Product datasheet for **SC124021**

### **PDE1C (NM\_005020) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PDE1C (NM_005020) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDE1C
Synonyms:	cam-PDE 1C; DFNA74; hCam-3; Hcam3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC124021 sequence for NM\_005020 edited (data generated by NextGen Sequencing)

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ATGGAGTCGCAACCAAGGAGATTGAAGAATTTGAGAGCAACTCTCTGAAATACCTGTAA
CCGGAACAGATCGAGAAAATCTGGCTTCGGCTCCGCGGGCTGAGGAAATATAAGAAAACG
TCCCAGAGATTACGGTCTTTGGTCAAACAATTAGAGAGAGGGGAAGCTTCAGTGGTAGAT
CTTAAGAAGAATTTGGAATATGCAGCCACAGTGCTTGAATCTGTGTATATTGATGAAACA
AGGAGACTCCTGGATACAGAGGATGAGCTCAGTGACATTAGTCAGATGCTGTGCCTTCT
GAGGTCCGAGACTGGCTGGCCTCCACCTTCACGCGGCAGATGGGGATGATGCTCAGGAGG
AGCGACGAGAAGCCCGGTTCAAGAGCATCGTTCACGCAGTGCAGGCTGGGATATTTGTG
GAGAGAATGTATAGACGGACATCAAACATGGTTGGACTGAGCTATCCACCAGCTGTTATT
GAGGCATTAAGGATGTGGACAAGTGGTCTTTGACGCTTTTTCCCTCAATGAGGCCAGT
GGGGATCATGCACTGAAATTTATTTTCTATGAACTACTCACACGTTATGATCTGATCAGC
CGTTTCAAGATCCCCATTTCTGCACTTGTCTCATTGTGGAGGCCCTGGAAGTGGGATAC
AGCAAGCACAAAAATCCTTACCATAACTTAATGCACGCTGCCGATTTACACAGACAGTG
CATTACCTCCTCTATAAGACAGGAGTGGCGAAGTGGCTGACGGAGCTGGAGATCTTTGCT
ATAATCTTCTCAGCTGCCATCCATGACTACGAGCATACCGGAACCAACAATTTCCAC
ATTCAGACTCGGTCTGATCCAGCTATTCTGTATAATGACAGATCTGTACTGGAGAATCAC
CATTTAAGTGCAGCTTATCGCCTTCTGCAAGATGACGAGGAAATGAATATTTTGATTAAC
CTCTCAAAGGATGACTGGAGGGAGTTTCGAACCTTGGTAATTGAAATGGTGTATGGCCACA
GATATGTCTTGTCACTTCCAACAATCAAAGCAATGAAGACTGCTCTGCAGCAGCCAGAA
GCCATTGAAAAGCCAAAAGCCTTATCCCTTATGCTGCATACAGCAGATATTAGCCATCCA
GCAAAAAGCATGGGACCTCCATCATCGCTGGACAATGTCACTCCTGGAGGAGTTCTTCAGA
CAGGGTGACAGAGAAGCAGAGCTGGGGCTGCCTTTTCTCCTCTGTGTGACCGAAAAGTCC
ACTATGGTTGCTCAGTCACAAGTAGGTTTCATTGATTTTCATCGTGAACCCACCTTCACT
GTGCTTACGGACATGACCGAGAAGATTGTGAGTCCATTAAATCGATGAAACCTCTCAAAC
GGTGGGACAGGACAGAGGCGTTCGAGTTTGAATAGCATCAGCTCGTCAGATGCCAAGCGA
TCAGGTGTCAAGACCTCTGGTTCAGAGGGAAGTGCCTCCGATCAACAATTTGTCTCTCC
GTTGACTATAAGAGCTTTAAAGCTACTTGGACGGAAGTGGTGCACATCAATCGGGAGAGA
TGGAGGGCCAAGGTACCCAAAGAGGAGAAGGCCAAGAAGGAAGCAGAGGAAAAGGCTCGC
CTGGCCGACAGAGGAGCAGCAAAAAGGAAATGGAAGCCAAAAGCCAGGCTGAAGAAGGCGCA
TCTGGCAAAGCTGAGAAAAGACGTCTGGAGAACTAAGAATCAAGTCAATGGAACACGG
GCAAAACAAAAGTACAACCTCTGTGGGAAAAATTCAAAAGCTGAGAAGTCATCAGGAGAA
CAGCAACAGAATGGTGAATTTCAAAGATGGCAAAAATAAGACAGACAAGAAGGATCACTCT
AACATCGGAAATGATTCAAAGAAAACAGATGATTCACAAGAGTAA
    
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Clone variation with respect to NM\_005020.2  
 58 c=>t;1773 c=>t;1782 c=>t;1830 t=>c

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_005020 unedited

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TTTGAATACGACTGACTATAGGGCGGCCGGAATTCGGCACGAGGGACAGCCAAACTAT
CTCAGCTTACCAGCCAGTGGTACCTACCTGCAGCTATGGAGTCGCCAACCAAGGAGATT
GAAGAATTTGAGAGCAACTCTCTGAAATACCTGTAACCGGAACAGATCGAGAAAATCTGG
CTTCGGCTCCGCGGGCTGAGGAAATATAAGAAAACGTCCCAGAGATTACGGTCTTTGGTC
AAACAATTAGAGAGAGGGGAAGCTTCAGTGGTAGATCTTAAGAAGAATTTGGAATATGCA
GCCACAGTGCTTGAATCTGTGTATATTGATGAAACAAGGAGACTCCTGGATACAGAGGAT
GAGCTCAGTGACATTAGTCAGATGCTGTGCCTTCTGAGGTCCGAGACTGGCTGGCTCC
ACCTTCACGCGGCAGATGGGGATGATGCTCAGGAGGAGCGACGAGAAGCCCGGTTCAAG
AGCATCGTTCACGCAGTGCAGGCTGGGATATTTGTGGAGAGAATGTATAGACGGACATCA
AACATGGTTGGACTGAGCTATCCACCAGCTGTTATTGAGGCATTAAGGATGTGGACAAG
TGGTCTTTGACGCTTTTTCCCTCAATGAGGCCAGTGGGGATCATGCACTGAAATTTATT
TTCTATGAACTACTCACAGTTATGATCTGATCAGCCGTTTCAAGATCCCCATTTCTGCA
CTTGTCTCATTGTGGAGGCCCTGGAAGT
    
```

<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_005020
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_005020.1</a> , <a href="#">NP_005011.1</a>
<b>RefSeq Size:</b>	2694 bp
<b>RefSeq ORF:</b>	1905 bp
<b>Locus ID:</b>	5137
<b>UniProt ID:</b>	<a href="#">Q14123</a>
<b>Cytogenetics:</b>	7p14.3
<b>Domains:</b>	PDEase, HDc
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Calcium signaling pathway, Olfactory transduction, Progesterone-mediated oocyte maturation, Purine metabolism

**Gene Summary:**

This gene encodes an enzyme that belongs to the 3'5'-cyclic nucleotide phosphodiesterase family. Members of this family catalyze hydrolysis of the cyclic nucleotides, cyclic adenosine monophosphate and cyclic guanosine monophosphate, to the corresponding nucleoside 5'-monophosphates. The enzyme encoded by this gene regulates proliferation and migration of vascular smooth muscle cells, and neointimal hyperplasia. This enzyme also plays a role in pathological vascular remodeling by regulating the stability of growth factor receptors, such as PDGF-receptor-beta. [provided by RefSeq, Jul 2016]

Transcript Variant: This variant (4) differs in the 5' and 3' UTR and has multiple coding region differences, compared to variant 3. These differences result in an isoform (1) with distinct N- and C-termini, compared to isoform 3. Variants 1 and 4 encode the same protein. Isoform 1 is also known as HCam-3B. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.