

## Product datasheet for **RC234147**

### PTGS1 (NM\_001271166) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PTGS1 (NM_001271166) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PTGS1
Synonyms:	COX1; COX3; PCOX1; PES-1; PGG/HS; PGHS-1; PGHS1; PHS1; PTGHS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC234147 representing NM\_001271166  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTCATGCGCCTGGTACTCACAGTGGCTCCAACCTTATCCCCAGTCCCCCACCTACAACCTCAGCAC  
 ATGACTACATCAGCTGGAGTCTTTCTCCAACGTGAGCTATTACACTCGTATTCTGCCCTCTGTGCCTAA  
 AGATTGCCCCACACCCATGGGAACCAAAGGAAGAAGCAGTTGCCAGATGCCAGCTCCTGGCCCCCGC  
 TTCCTGCTCAGGAGGAAGTTCATACCTGACCCCAAGGCACCAACCTCATGTTTGCCCTTCTTGCACAAC  
 ACTTCACCCACCAGTTCTTCAAACCTTCTGGCAAGATGGGTCTGGCTTACCAAGGCCCTGGGCCATGG  
 GGTAGACCTCGGCCACATTTATGGAGACAATCTGGAGCGTCAGTATCAACTGCGGCTCTTAAAGGATGGG  
 AAACCAAGTACCAGGTCTGGATGGAGAAATGTACCCGCCCTCGGTAGAAGAGGCGCTGTGTTGATGC  
 ACTACCCCGAGGCATCCCGCCCAGAGCCAGATGGCTGTGGCCAGGAGGTGTTGGGCTGCTTCTGG  
 GCTCATGTGTATGCCACGCTCTGGCTACGTGAGCACAACCGTGTGTGTGACCTGCTGAAGGCTGAGCAC  
 CCCACCTGGGGCGATGAGCAGCTTTCCAGACGACCCGCCTCATCCTCATAGGGGAGACCATCAAGATTG  
 TCATCGAGGAGTACGTGCAGCAGCTGAGTGGCTATTTCCCTGCAGCTGAAATTTGACCCAGAGCTGCTGTT  
 CGGTGTCCAGTTCCAATACCGCAACCGCATTGCCATGGAGTTCAACCATCTTACCACTGGCACCCCTC  
 ATGCTGACTCCTTCAAGATCGGTGGGGCAGGAACATGGACCACCACATCTGCATGTGGCTGTGGATG  
 TCATCAGGGAGTCTCGGGAGATGCGGCTGCAGCCCTTCAATGAGTACCGCAAGAGGTTGGCATGAAACC  
 CTACACCTCCTCCAGGAGCTCGTAGGAGAGAAGGAGATGGCAGCAGAGTTGGAGGAATTGTATGGAGAC  
 ATTGATGCGTTGGAGTTCTACCCTGGACTGCTTCTTGAAGTGGCATCCAACTCTATCTTGGGGAGA  
 GTATGATAGAGATTGGGGCTCCCTTTCCCTCAAGGGTCTCCTAGGGAATCCCATCTGTTCTCCGGAGTA  
 CTGGAAGCCGAGCACATTTGGCGCGAGGTGGGCTTTAACATTGTCAAGACGCGCCACACTGAAGAAGCTG  
 GTCTGCCTCAACACCAAGACCTGTCCCTACGTTTCTTCCGTGTGCCGGATGCCAGTCAGGATGATGGG  
 CTGCTGTGGAGCGACCATCCACAGAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC234147 representing NM\_001271166  
 Red=Cloning site Green=Tags(s)

MLMRLVLTVRNLIIPSPPTYNSAHDIYSWESFSNVSYYTRILPSVPKDCPTPMGTGKKQLPDAQLLARR  
 FLLRRKFIPDPQGTNLMFAFFAQHFTHQFFKTSGKMGPFTKALGHGVDLGHYGDNLERQYQLRFLKDG  
 KLKYQVLDGEMYPSPVEEAPVLMHYPRGIPPQSQMAVGQEVFGLLPGLMLYATLWLREHNRVCDLLKAEH  
 PTWGDEQLFQTTRLILIGETIKIVIEEYVQQLSGYFLQKFDPELLFGVQFYRNRRIAMEFNHLYHWHPL  
 MPDSFKIGGGRNMDHHILHVAVDVIRESREMRLQPFNEYRKRFGMKPYTSFQELVGEKEMAAELEEYGD  
 IDALEFYPLLLLEKHPNSIFGESMIEIGAPFLKGLLGNPICSPEYWKPSTFGGEVGFNIYKTATLKKL  
 VCLNTKTCOPYVFRVPDASQDDGPAVERPSTEL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_001271166

ORF Size: 1359 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\\_001271166.2](#)

RefSeq Size: 5160 bp

RefSeq ORF: 1362 bp

Locus ID: 5742

UniProt ID: [P23219](#)

**Cytogenetics:** 9q33.2

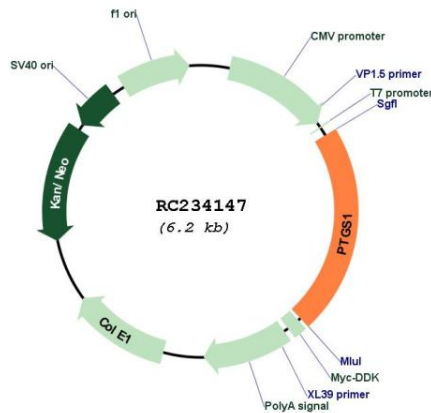
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Arachidonic acid metabolism, Metabolic pathways

**MW:** 52.4 kDa

**Gene Summary:** This is one of two genes encoding similar enzymes that catalyze the conversion of arachinodate to prostaglandin. The encoded protein regulates angiogenesis in endothelial cells, and is inhibited by nonsteroidal anti-inflammatory drugs such as aspirin. Based on its ability to function as both a cyclooxygenase and as a peroxidase, the encoded protein has been identified as a moonlighting protein. The protein may promote cell proliferation during tumor progression. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

**Product images:**



Circular map for RC234147