

## Product datasheet for **RC217001**

### **PTGS1 (NM\_080591) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PTGS1 (NM_080591) 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:**

>RC217001 representing NM\_080591  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCCGGAGTCTCTTGTCTCCGGTTCTTGTCTTCTGTCTCTGCTCCCGCCGCTCCCCGTCTGTCTCG  
 CGGACCCAGGGGCGCCACGCCAGTGAATCCCTGTTGTTACTATCCATGCCAGCACCAGGGCATCTGTGT  
 CCGCTTCGGCCTTGACCGCTACCAGTGTGACTGCACCCGCACGGGCTATTCGGGCCCAACTGCACCATC  
 CCTGGCCTGTGGACCTGGCTCCGGAATTCAGTGCAGCCAGCCCTCTTTCACCCACTTCTGTCTACTC  
 ACGGGCGTGGTCTGGGAGTTTGTCAATGCCACCTTCATCCGAGAGATGCTCATGCGCCTGGTACTCAC  
 AGTGGCTCCAACCTTATCCCCAGTCCCCCACCTACAACCTCAGCACATGACTACATCAGCTGGGAGTCT  
 TTCTCAAACGTGAGCTATTACACTCGTATTCTGCCCTCTGTGCCTAAAGATTGCCCCACACCCATGGGAA  
 CCAAAGGAAGAAGCAGTTGCCAGATGCCAGCTCCTGGCCCGCCGCTTCTGTCTCAGGAGGAAGTTCAT  
 ACCTGACCCCAAGGCACCAACCTCATGTTTGCCTTCTTTCACACAACACTTCACCCACCAGTTCTTCAA  
 ACTTCTGCAAGATGGGTCTGGCTTACCAAGGCCTTGGGCCATGGGGTAGACCTCGGCCACATTTATG  
 GAGACAATCTGGAGCGTCAATCAACTGCGGCTCTTAAAGGATGGGAACTCAAGTACCAGGTGCTGGA  
 TGGAGAAATGTACCCGCCCTCGGTAGAAGAGGCGCCTGTGTTGATGCACTACCCCGAGGCATCCCGCC  
 CAGAGCCAGATGGCTGTGGGCCAGGAGGTGTTGGGCTGCTTCTGGGCTCATGCTGATGCCACGCTCT  
 GGCTACGTGAGCACAACCGTGTGTGTGACCTGCTGAAGGCTGAGCACCCACCTGGGGCGATGAGCAGCT  
 TTTCCAGACGACCCGCTCATCCTCATAGGGGAGACCAACAAGATTGTCATCGAGGAGTACGTGCAGCAG  
 CTGAGTGGCTATTTCTGCAGCTGAAATTTGACCCAGAGCTGCTGTTCCGTTGCCAGTCCAATACCGCA  
 ACCGCATTGCCATGGAGTTCAACCATCTACCAGTGGCACCCCTCATGCCTGACTCTCAAGATCGG  
 TGGGGCAGGAACATGGACCACCACTCCTCATGTGGCTGTGGATGTCATCAGGGAGTCTCGGGAGATG  
 CGGCTGCAGCCCTCAATGAGTACCGCAAGAGGTTTGGCATGAAACCCTACACCTCCTTCCAGGAGCTCG  
 TAGGAGAGAAGGAGATGGCAGCAGAGTTGGAGGAATTGTATGGAGACATTGATGCGTTGGAGTTCTACCC  
 TGGACTGCTTCTTAAAAGTGCCATCCAACTCTATCTTGGGGAGAGTATGATAGAGATTGGGGCTCCC  
 TTTTCCCTCAAGGGTCTCCTAGGGAATCCCATCTGTTCTCCGGAGTACTGGAAGCCGAGCACATTTGGCG  
 GCGAGGTGGCTTAAACATTGTCAAGACGGCCACACTGAAGAAGCTGGTCTGCCTCAACACCAAGACCTG  
 TCCCTACGTTTCTTCCGTGTGCCGGATGCCAGTCAAGATGATGGGCTGCTGTGGAGCGACCATCCACA  
 GAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC217001 representing NM\_080591  
 Red=Cloning site Green=Tags(s)

MSRLLLLRFLFLLLLPLPVLLADPGAPTPVNPCCYPCQHQGICVRFGLDRYQCDCTRTGYSGNPCTI  
 PGLWTWLRNSLRSPSFTHFLLTHGRWFVFNATFIREMLMRLVLTVRSNLIPSPPTYNSAHDYISWES  
 FSNVSYTRILPSVPKDCPTPMGTGKKQLPDAQLLARRFLLRRKFIPDPQGTNLMFAFFAQHFTHQFFK  
 TSGKMGPGFTKALGHGVDLGHYIGNLERYQLRLFKDGKLYQVLDGEMYPVSVEEAPVLMHYPRGIPP  
 QSQMAVQGEVFGLLPGLMLYATLWLREHNRVCDLLKAEHPTWGDEQLFQTTRLILIGETIKIVIEEYVQQ  
 LSGYFLQLKFDPELLFGVQFYRNRIAMEFNHLYHWHPLMPDSFKIGGGRNMDHHLHVAVDVIRESREM  
 RLQPFNEYRKRFGMKPYTSFQELVGEKEMAAELEELYGDIDALEFYPLLLLEKCHPNSIFGESMIEIGAP  
 FSLKGLLGNPICSPEYWKPFSTFGGEVGFNIVKTATLKKLVCLNTKTCOPYVSRVFPDASQDDGPAVERPST  
 EL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6095\\_e11.zip](https://cdn.origene.com/chromatograms/mk6095_e11.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_080591

**ORF Size:** 1686 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\\_080591.3](#)

**RefSeq Size:** 4982 bp

**RefSeq ORF:** 1689 bp

**Locus ID:** 5742

**UniProt ID:** [P23219](#)

**Cytogenetics:** 9q33.2

**Domains:** An\_peroxidase

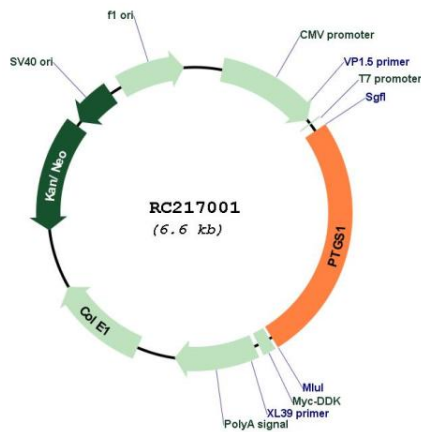
**Protein Families:** Druggable Genome, Transmembrane

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

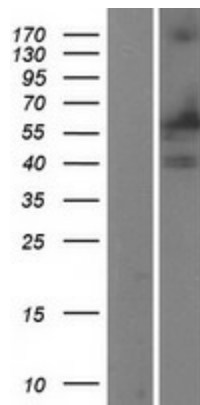
**MW:** 61.8 kDa

**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 RC217001



Western blot validation of overexpression lysate (Cat# [LY403309]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217001 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).