

## Product datasheet for **RG234380**

### PTGS1 (NM\_001271368) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PTGS1 (NM_001271368) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PTGS1
Synonyms:	COX1; COX3; PCOX1; PES-1; PGG/HS; PGHS-1; PGHS1; PHS1; PTGHS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234380 representing NM\_001271368  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGAAACCGAGGCTCATGAATCCCTGTTGTTACTATCCATGCCAGCACCAGGGCATCTGTGTCCGCT  
 TCGGCCTTGACCGCTACCAGTGTGACTGCACCCGCACGGGCTATTCCGGCCCAACTGCACCATCCCTGG  
 CCTGTGGACCTGGCTCCGGAATCACTGCGGCCACGCCCTCTTTACCCACTTCTGCTCACTCACGGG  
 CGCTGGTCTGGGAGTTGTCAATGCCACCTTCATCCGAGAGATGCTCATGCGCCTGGTACTCACAGTGC  
 GCTCCAACCTTATCCCCAGTCCCCCACCTACAACCTCAGCACATGACTACATCAGCTGGGAGTCTTTCTC  
 CAACGTGAGCTATTACACTCGTATTCTGCCCTCTGTGCCATAAAGATTGCCCCACACCCATGGGAACAAA  
 GGAAGAAGCAGTTGCCAGATGCCAGCTCCTGGCCCGCCGCTTCTGCTCAGGAGGAAGTTCATACCTG  
 ACCCCCAAGGCACCAACCTCATGTTTGCCTTCTTTGCACAACACTTCACCCACCAGTTCTTCAAACCTTC  
 TGGCAAGATGGGTCTGGCTTACCAAGGCCTTGGCCATGGGGTAGACCTCGGCCACATTTATGGAGAC  
 AATCTGGAGCGTCAGTATCAACTGCGGCTCTTAAAGGATGGGAACTCAAGTACCAGGTGCTGGATGGAG  
 AAATGTACCCGCCCTCGGTAGAAGAGGCGCCTGTGTTGATGCACTACCCCGAGGCATCCCGCCCAAGAG  
 CCAGATGGCTGTGGGCCAGGAGGTGTTGGGCTGCTTCTGGGCTCATGCTGATGCCACGCTCTGGCTA  
 CGTGAGCACAACCGTGTGTGACCTGTGAAGGCTGAGACCCACCTGGGGCGATGAGCAGCTTTTCC  
 AGACGACCCGCCCTCATCTCATAGGGGAGACCATCAAGATTGTCATCGAGGAGTACGTGCAGCAGCTGAG  
 TGGCTATTTCTCGAGCTGAAATTTGACCCAGAGCTGCTGTTCCGTGTCCAGTCCAATACCGCAACCCG  
 ATTGCCATGGAGTTCAACCATCTCTACCACTGGCACCCCTCATGCCTGACTCCTTCAAGATCGTGGGG  
 GCAGAACATGGACCACACCTCTGCATGTGGCTGTGGATGTCATCAGGGAGTCTCGGGAGATCGCGGCT  
 GCAGCCCTTCAATGAGTACCGCAAGAGGTTTGGCATGAAACCCTACACCTCCTTCCAGGAGCTCGTAGGA  
 GAGAAGGAGATGGCAGCAGAGTTGGAGGAATTGTATGGAGACATTGATGCGTTGGAGTTCTACCCTGGAC  
 TGCTTCTTGAAGAGTCCATCCAACTCTATCTTTGGGAGAGTATGATAGAGATTGGGGCTCCCTTTTC  
 CCTCAAGGGTCTCCTAGGGAATCCCATCTGTTCTCCGGAGTACTGGAAGCCGAGCACATTTGGCGGCGAG  
 GTGGGCTTAAACATTGTCAAGACGGCCACACTGAAGAAGCTGGTCTGCCTCAACACCAAGACCTGTCCCT  
 ACGTTTCTTCCGTGTCCGGATGCCAGTCAGGATGATGGGCTGCTGTGGAGCGACCATCCACAGAGCT  
 C

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG234380 representing NM\_001271368  
 Red=Cloning site Green=Tags(s)

MRKPRLMNPCCYYPQHQGICVRFGLDRYQCDCTRTGYSGPNCTIPGLWTWLRNSLRPSPSFTHLLTHG  
 RWFWEFVNATFIREMLMRLVLTVRSNLIPSPPTYNSAHDYISWESFSNVSYTRILPSVPKDCPTPMGTK  
 GKQKLPDAQLLARRFLLRRKFIPDPQGTNLMFAFFAQHFTHQFFKTSGKMGPGFTKALGHGVDLGHYIGD  
 NLERQYQLRFLKDGKLYQVLDGEMYPSPVEEAPVLMHYPRGIPPQSQMAVGQEVFGLLPGLMLYATLWL  
 REHNRCVLDLLKAEHPTWGDEQLFQTTRLILIGETIKIVIEEYVQQLSGYFLQLKFDPELLFGVQFQYRNR  
 IAMEFNHLYHWHPLMPDSFKIGGGRNMDHHILHVAVDVIRESMRMLQPFNEYRKRFGMKPYTSFQELVG  
 EKEMAAELEEELYGDIDALEFYPLLLLEKCHPNISIFGESMIEIGAPFSLKGLLGNPICSPEYWKPFSTFGGE  
 VGFNIVKTATLKKLVCLNTKCPYVSFRVPDASQDDGPAVERPSTEL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001271368

**ORF Size:** 1611 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\\_001271368.2](#)

**RefSeq Size:** 5382 bp

**RefSeq ORF:** 1614 bp

**Locus ID:** 5742

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

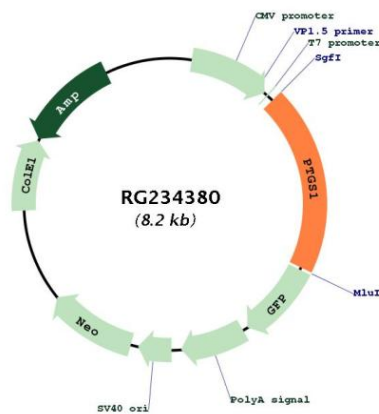
**Cytogenetics:** 9q33.2

**Protein Families:** Druggable Genome, Transmembrane

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

**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 RG234380