

Product datasheet for **RG238863**

PTGS1 (NM_001271164) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PTGS1 (NM_001271164) 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:

>RG238863 representing NM_001271164.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGAGCCGGAGTCTTTGCTCTGGTCTTGTGTTCTCTGCTCCTGCTCCCGCCGCTCCCCGTCTGCTC
CGGACCCAGGGCGCCACGCCAGTGAATCCCTGTTGTTACTATCCATGCCAGCACCAGGGCATCTGT
GTCCGCTTCGGCCTTGACCGCTACCAAGTGTGACTGCACCCGCACGGGCTATTCCGGCCCCAACTGCACC
ATCCCTGGCCTGTGGACCTGGCTCCGGAATCACTGCGGCCAGCCCTCTTTACCCCACTTCTGCTC
ACTCACGGGCGTGGTTCTGGGAGTTTGTCAATGCCACCTTATCCGAGAGATGCTCATGCGCTGGTA
CTCACAGGAAGAAGCAGTTGCCAGATGCCAGCTCCTGGCCCGCGCTTCTGCTCAGGAGGAAGTTC
ATACCTGACCCCCAAGGCACCAACCTCATGTTTGCCTTCTTGCACAACACTTACCCACCAGTTCTTC
AAAATCTTGCAAGATGGTCTGGCTTACCAAGGCCTTGGCCATGGGGTAGACCTCGGCCACATT
TATGGAGACAATCTGGAGCGTCAGTATCAACTGCGGCTCTTAAGGATGGGAACTCAAGTACCAGGTG
CTGGATGGAGAAATGTACCCGCCCTCGGTAGAAGAGGCGCTGTGTTGATGCACTACCCCGAGGCATC
CGCCCCAGAGCCAGATGGCTGTGGGCCAGGAGGTGTTGGGCTGCTTCTGGGCTCATGCTGTATGCC
ACGCTCTGGCTACGTGAGCACAACCGTGTGTGACCTGCTGAAGGCTGAGCACCCACCTGGGGCGAT
GAGCAGCTTTTCCAGACGACCCGCTCATCCTCATAGGGGAGACCATCAAGATTGTCATCGAGGAGTAC
GTGACGAGCTGAGTGGCTATTTCTGCAGCTGAAATTTGACCCAGAGCTGCTGTTCCGGTGTCCAGTTC
CAATACCGCAACCGCATTGCCATGGAGTTCAACCATCTCTACCACTGGCACCCCTCATGCTGACTCC
TTCAAGTGGGCTCCCAGGAGTACAGCTACGAGCAGTTCTTGTCAACACCTCCATGTTGGTGGACTAT
GGGTTGAGGCCCTGGTGGATGCCTTCTCTGCCAGATTGCTGGCCGGATCGGTGGGGCAGGAACATG
GACCACCATCCTGCATGTGGCTGGATGTCATCAGGAGTCTCGGAGATCGGCTGCAGCCCTTC
AATGAGTACCGCAAGAGGTTTGGCATGAAACCCTACACCTCCTTCCAGGAGCTCGTAGGAGAGAAGGAG
ATGGCAGCAGAGTTGGAGGAATTGATGGAGACATTGATGCGTTGGAGTTCTACCCTGGACTGCTTCTT
GAAAAGTGCCATCCAACTCTATCTTTGGGAGAGTATGATAGAGATTGGGGCTCCCTTTTCCCTCAAG
GGTCTCTAGGGAATCCCATCTGTTCTCCGGAGTACTGGAAGCCGAGCACATTTGGCGCGAGGTGGGC
TTTAACATTGTCAAGACGGCCACACTGAAGAAGCTGGTCTGCCTCAACACCAAGACTGTCCCTACGTT
TCCTTCCGTGTCGGATGCCAGTCAGGATGATGGCCTGCTGTGGAGCGACCATCCACAGAGCTC
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238863
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MSRLLLLWFLFLLLLPLVLLADPGAPTPVNPCCYPCQHQGICVRFGLDRYQDCDTRTGYSNPCT
IPGLWTWLRNSLRSPSFTHFLLTHGRWFWEFVNATFIREMLMRLVLTGKKQLPDAQLLARRFLRRKF
IPDPQGTNLMFAFFAQHFTHQFKTSGKMGPGFTKALGHGVDLGHYGDNLERQYQLRLFKDGKLYQV
LDGEMYPPSVVEEAPVLMHYPRGIPPQSQMAVGQEVFGLLPGLMLYATLWLRHNVRCDLLKAEHPTWGD
EQLFQTTTRLILIGETIKIVIEEYVQQLSGYFLQLKFDPELLFGVQFQYRNRIAMEFNHLYHWHPLMPDS
FKVGSQEYSYEQFLFNTSMLVDYVEALVDAFSRQIAGRIGGGRNMDHHILHVAVDIVRESREMLQPF
NEYRKRFGMKPYTSFQELVGEKEMAAEELYGDIDALEFYPLLEKCHPNISIFGESMIEIGAPFSLK
GLLGNPICSPEYWKPFSTFGGEVGFNIVKTATLKKLVCLNTKTCYVVSFRVPDASQDDGPAVERPSTEL
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001271164

ORF Size: 1653 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).

RefSeq: [NM_001271164.2](#)

RefSeq Size: 4901 bp

RefSeq ORF: 1656 bp

Locus ID: 5742

Cytogenetics: 9q33.2

Protein Families: Druggable Genome, Transmembrane

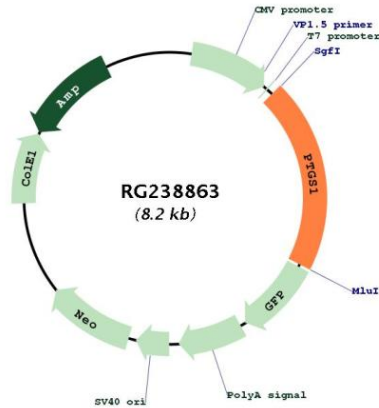
Protein Pathways: Arachidonic acid metabolism, Metabolic pathways

MW: 63.7 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 RG238863