

## Product datasheet for SC323764

### COX2 (PTGS2) (NM\_000963) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COX2 (PTGS2) (NM_000963) Human Untagged Clone
Tag:	Tag Free
Symbol:	COX2
Synonyms:	COX-2; COX2; GRIPGHS; hCox-2; PGG/HS; PGHS-2; PHS-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_000963.1  
 CTTGCAGTGAGCGTCAGGAGCACGTCCAGGAACCTCCTCAGCAGCGCCTCCTTCAGCTCCA  
 CAGCCAGACGCCCTCAGACAGCAAAGCCTACCCCGCGCCGCGCCCTGCCCGCCGCTGCG  
 ATGCTCGCCCGCCCTGCTGCTGTGCGCGGTCCCTGGCGCTCAGCCATACAGCAAATCCT  
 TGCTGTTCCACCCATGTCAAAACCGAGGTGTATGTATGAGTGTGGGATTTGACCAGTAT  
 AAGTGCATTGTACCCGGACAGGATTCTATGGAGAAAAGTCTCAACACCGGAATTTTTG  
 ACAAGAATAAAATTTCTGAAACCCACTCCAAACACAGTGCCTACATACTTACCCAC  
 TTCAAGGGATTTTGAACGTTGTGAATAACATTCCTTCCTTCGAAATGCAATTATGAGT  
 TATGTGTTGACATCCAGATCACATTTGATTGACAGTCCACCAACTTACAATGCTGACTAT  
 GGCTACAAAAGCTGGGAAGCCTTCTAACCTCTCCTATTATACTAGAGCCCTTCCTCCT  
 GTGCCTGATGATTGCCGACTCCCTTGGGTGTCAAAGGTAAAAAGCAGCTTCCTGATTCA  
 AATGAGATTGTGAAAAATTGCTTCTAAGAAGAAAGTTTATCCCTGATCCCAGGGCTCA  
 AACATGATGTTTGCAATCTTTGCCAGCACTTCACGCATCAGTTTTTCAAGACAGATCAT  
 AAGCGAGGGCCAGCTTTCACCAACGGGCTGGGCCATGGGGTGGACTTAAATCATATTTAC  
 GGTGAACTCTGGCTAGACAGCGTAAACTGCGCCTTTTCAAGGATGGAAAAATGAAATAT  
 CAGATAATTGATGGAGAGATGTATCCTCCCACAGTCAAAGATACTCAGGCAGAGATGATC  
 TACCCTCCTCAAGTCCCTGAGCATCTACGGTTTGCTGTGGGCAGGAGGTCTTTGGTCTG  
 GTGCCTGGTCTGATGATGTATGCCACAATCTGGCTGCGGGAACACAACAGAGTATGCGAT  
 GTGCTTAAACAGGAGCATCCTGAATGGGGTGTGAGCAGTTGTTCCAGACAAGCAGGCTA  
 ATACTGATAGGAGAGACTATTAAGATTGTGATTGAAGATTATGTGCAACACTTGAGTGGC  
 TATCACTTCAAAGTAAATTTGACCCAGAACTACTTTTCAACAAACAATTCCAGTACCAA  
 AATCGTATTGCTGCTGAATTTAACACCCTCTATCACTGGCATCCCCTTCTGCCTGACACC  
 TTTCAAATTCATGACCAGAAATACAACATCAACAGTTTATCTACAACAACCTCTATATTG  
 CTGGAACATGGAATTACCAGTTTGTGTAATCATTACCAGGCAAATTGCTGGCAGGGTT  
 GCTGGTGGTAGGAATGTTCCACCCGAGTACAGAAAGTATCACAGGCTTCCATTGACCAG  
 AGCAGGCAGATGAAATACCAGTCTTTAATGAGTACCGCAAACGCTTTATGCTGAAGCCC  
 TATGAATCATTTGAAGAACTTACAGGAGAAAAGGAAATGTCTGCAGAGTTGGAAGCACTC



[View online »](#)

TATGGTGACATCGATGCTGTGGAGCTGTATCCTGCCCTTCTGGTAGAAAAGCCTCGGCCA  
 GATGCCATCTTTGGTGAACCATGGTAGAAGTTGGAGCACCATTCTCCTTGAAAGGACTT  
 ATGGGTAATGTTATATGTTCTCCTGCCTACTGGAAGCCAAGCACTTTTGGTGGAGAAGTG  
 GGTTCCTCAATCATCAACTGCCTCAATTCAGTCTCTCATCTGCAATAACGTGAAGGGC  
 TGTCCTTTACTTCATTCAGTGTCCAGATCCAGAGCTCATTAAAACAGTCACCATCAAT  
 GCAAGTTCCTCCCGCTCCGGACTAGATGATATCAATCCCACAGTACTACTAAAAGAACGT  
 TCGACTGAAGTGTAGAAGTCTAATGATCATATTTATTTATTTATATGAACCATGTCTATT  
 AATTTAATTATTTAATAATATTTATATTAATACTCCTTATGTTACTTAACATCTTCTGTAA  
 CAGAAGTCAGTACTCCTGTTGCGGAGAAAAGGAGTCATACTTGTGAAGACTTTTATGTCAC  
 TACTCTAAAGATTTTGTGTTGCTGTTAAGTTTGGAAAACAGTTTTTATTCTGTTTTATA  
 AACAGAGAGAAAATGAGTTTTGACGCTTTTTACTTGAATTTCAACTTATATTATAAGAA  
 CGAAAAGTAAAGATGTTTGAATACTTAAACACTGTCACAAGATGGCAAAATGCTGAAAGTT  
 TTTACACTGTCGATGTTTCCAATGCATCTCCATGATGCATTAGAAGTAACTAATGTTTG  
 AAATTTAAAGTACTTTTGGTCATTTTTCTGTCATCAACAAAAACAGGTATCAGTGCAT  
 TATTAATGAATATTTAAATTAGACATTACCAGTAATTTTCATGTCTACTTTTTAAATCA  
 GCAATGAAAACAATAATTTGAAATTTCTAAATTCATAGGGTAGAATCACCTGTAAAAGCTT  
 GTTTGATTTCTTAAAGTTATTAACCTGTACATATACAAAAAGAAGCTGTCTTGGATT  
 AAATCTGTAATAATCAGTAGAAAATTTACTACAATTGCTTGTAAAATATTTTATAAGTGA  
 TGTTCTTTTTTCCCAAGAGTATAAACCTTTTTAGTGTGACTGTTAAAACCTCCTTTTTAA  
 ATCAAAATGCCAAATTTATTAAGGTGGTGGAGCCACTGCAGTGTATCTTAAAATAAGAA  
 TATTTTGTGAGATATCCAGAATTTGTTTATATGGCTGGTAACATGTAAAATCTATATC  
 AGCAAAAGGGTCTACCTTTAAAATAAGCAATAACAAAGAAGAAAACCAAAATTTGTTCA  
 AATTTAGGTTTAAAACCTTTTGAAGCAAACCTTTTTTTATCCTTGTGCACTGCAGGCCTGGT  
 ACTCAGATTTTGTATGAGGTTAATGAAGTACCAAGCTGTGCTTGAATAACGATATGTTT  
 TCTCAGATTTTCTGTTGTACAGTTTAAATTTAGCAGTCCATATCACATTGCAAAAGTAGCA  
 ATGACCTCATAAAATACCTCTTCAAAATGCTTAAATTCATTTACACATTAATTTTATCT  
 CAGTCTTGAAGCCAATTCAGTAGGTGCATTGGAATCAAGCCTGGCTACCTGCATGCTGTT  
 CCTTTTCTTTCTTTTAGCCATTTTGTCTAAGAGACACAGTCTTCTCATCACTTCGTT  
 TCTCTATTTTGTTTACTAGTCTTAAGATCAGAGTTCACCTTTCTTTGGACTCTGCCTAT  
 ATTTTCTTACCTGAACCTTTTGAAGTTTTCAGGTAACCTCAGCTCAGGACTGCTATTTA  
 GCTCCTCTTAAGAAGATTAATAAAAAAAAAAAAAAAAAA

**Restriction Sites:**

ECoRI-NOT

**ACCN:**

NM\_000963

**OTI Disclaimer:**

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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_000963.1</a> , <a href="#">NP_000954.1</a>
<b>RefSeq Size:</b>	4465 bp
<b>RefSeq ORF:</b>	1815 bp
<b>Locus ID:</b>	5743
<b>UniProt ID:</b>	<a href="#">P35354</a>
<b>Cytogenetics:</b>	1q31.1
<b>Domains:</b>	An_peroxidase, EGF
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Arachidonic acid metabolism, Pathways in cancer, Small cell lung cancer, VEGF signaling pathway
<b>Gene Summary:</b>	Prostaglandin-endoperoxide synthase (PTGS), also known as cyclooxygenase, is the key enzyme in prostaglandin biosynthesis, and acts both as a dioxygenase and as a peroxidase. There are two isozymes of PTGS: a constitutive PTGS1 and an inducible PTGS2, which differ in their regulation of expression and tissue distribution. This gene encodes the inducible isozyme. It is regulated by specific stimulatory events, suggesting that it is responsible for the prostanoid biosynthesis involved in inflammation and mitogenesis. [provided by RefSeq, Feb 2009]