

Product datasheet for **SC128243**

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:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_000963, the custom clone sequence may differ by one or more nucleotides

```

ATGCTCGCCCGCCCTGCTGCTGTGCGCGGTCTGGCGCTCAGCCATACAGCAAATCCTTGCTGTTCCC
ACCCATGTCAAACCGAGGTGTATGTATGAGTGTGGGATTTGACCAGTATAAGTGGCATTGTACCCGGAC
AGGATTCTATGGAGAAAAGTGTCAACACCGGAATTTTTGACAAGAATAAAATTATTTCTGAAACCCACT
CCAAACACAGTGCCTACATACTTACCCACTTCAAGGGATTTTGGAACGTTGTGAATAACATTCCCTTCC
TTCGAAATGCAATTATGAGTTATGTGTTGACATCCAGATCACATTTGATTGACAGTCCACCAACTTACAA
TGCTGACTATGGCTACAAAAGCTGGGAAGCCTTCTAACCTCTCCTATTATACTAGAGCCCTTCTCCT
GTGCTGATGATTGCCGACTCCCTTGGGTGTCAAAGGTAAGGAGCAGCTTCTGATTCAAATGAGATTG
TGGAAAAATTGCTTCAAGAAGAAAGTTCATCCCTGATCCCAGGGCTCAAACATGATGTTTGCATTCTT
TGCCAGCACTTACGCATCAGTTTTTCAAGACAGATCATAAGCGAGGGCCAGCTTCCACCAACGGGCTG
GGCCATGGGTGGACTTAAATCATATTTACGGTAAAAGCTGGCTAGACAGCGTAAACTGCGCTTTTCA
AGGATGAAAAATGAAATATCAGATAATTGATGGAGAGATGTATCCTCCCACAGTCAAAGATACTCAGGC
AGAGATGATCTACCTCCCTCAAGTCCCTGAGCATCTACGGTTTGTCTGGGGCAGGAGGTCTTGTGCTG
GTGCTGGTCTGATGATGTATGCCACAATCTGGCTGCGGGAACACAACAGAGTATGCGATGTGCTTAAAC
AGGAGCATCTGAATGGGTGATGAGCAGTTGTTCCAGACAAGCAGGCTAATACTGATAGGAGAGACTAT
TAAGATTGTGATTGAAGATTATGTGCAACACTTGAAGTGGCTATCACTTCAAAGTAAATTTGACCCAGAA
CTACTTTTCAACAAACAATTCCAGTACCAAAATCGTATTGCTGCTGAATTTAACACCCCTCTACTGCGC
ATCCCCCTTCTGCCTGACACCTTTCAAATTCATGACCAGAAATACAACATCAACAGTTTATCTACAACAA
CTCTATATTGCTGGAACATGGAATTACCAGTTTGTGTAATCATTACCAGGCAAATGCTGCGCAGGGTT
GCTGGGTAGGAATGTTCCACCCGAGTACAGAAAGTATCACAGGCTTCCATTGACCAGCAGGCAAGCAGA
TGAAATACCAGTCTTTTAAATGAGTACCGCAAACGCTTTATGCTGAAGCCCTATGAATCATTGGAAGAACT
TACAGGAGAAAAGGAAATGTCTGCAGAGTTGGAAGCACTCTATGGTGACATCGATGCTGTGGAGCTGTAT
CCTGCCCTTCTGGTAGAAAAGCCTCGGCCAGATGCCATCTTGGTGAACCATGGTAGAAGTTGGAGCAC
CATTCTCCTTGAAGGACTTATGGGTAATGTTATATGTTCTCCTGCTACTGGAAGCCAAGCACTTTTGG
TGGAGAAGTGGGTTTTCAAATCATCAACACTGCCTCAATTCAGTCTCTCATCTGCAATAACGTGAAGGGC
TGTCCTTTACTTCAATTCAGTGTCCAGATCCAGAGCTCATTAAAACAGTACCATCAATGCAAGTTCTT
CCCCTCCGACTAGATGATATCAATCCCACAGTACTACTAAAAGAAGCTTCGACTGAAGTGTAG
    
```

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000963 unedited

```

AATCCGCCCGTTGCCGATTGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGA
GCTCATTTAGGTGACACTATAGAATAACAAGCTACTTGTCTTTTTGCAGCGGCCGCGAAT
TCGGCACGAGGCTTATAAAAAGGAAGGTTCTCTCGGTTAGCGACCAATTGTCATACGACT
TGCAGTGAGCGTCAGGAGCAGTCCAGGAACCTCAGCAGCGCCTCCTCAGCTCCACA
GCCAGACGCCCTCAGACAGCAAAGCCTACCCCCGCGCCGCGCCCTGCCCGCCGCTGCGAT
GCTCGCCCGCCCTGCTGCTGTGCGCGGTCTGGCGCTCAGCCATACAGCAAATCCTTG
CTGTTCCACCCATGTCAAACCGAGGTGTATGTATGAGTGTGGGATTTGACCAGTATAA
GTGCGATTGTACCCGGACAGGATTCTATGGAGAAAAGTGTCAACACCGGAATTTTTGAC
AAGAATAAATTTTCTGAAACCCACTCCAACACAGTGCCTACATACTTACCCACTTCA
GGGATTTTGGACCGTGTGATAACATTCCCTTTCTCNAATGCAATATTAGTATGTGGTGA
CATTTCAGACACACTTTGATGACAGTTCACACCTACAATGCTGCCTATGGGTACCAAAGC
TGGGAGGCCTTTTTAACCTTCTATATACTATAGCCCTTCTCCTGTGCCTGAGAATGCC
CGATCCCTTGTGGTAAAGTAAAAACAGCTTCTGTTAAAAGAAAAGTGGAAAAATGCTTT
TAAAAAAAATAATCCTGTTCCCCGGCCAAACAGAGTTGCGTTTTTTGCCCCCTTTCCCC
CACTTTTTAAGAAAAAATAACAAGGCCGTTTTCCACGGCTTGGCTGGGGGGGTCTAAAA
ATTTTCCGGGAATCTGGTTCACGCGC
    
```

3' Read Nucleotide Sequence:	>Forward primer walk for NM_000963 unedited ATNCTGNACCAGNAATACAACACTATCAACAGTTTATCTACAACAACCTTTATTGCTGGAAC ATGGAATTACCCAGTTTGTGAATCATTACCAGGCAAATTGCTGGCAGGGTTGCTGGTG GTAGGAATGTTCCACCCGAGTACAGAAAGTATCACAGGCTTCCATTGACCAGAGCAGGC AGATGAAATACAGTCTTTAATGAGTACCGCAAACGCTTTATGCTGAAGCCCTATGAAT CATTGGAAGAACTTACAGGAGAAAAGGAAATGTCTGCAGAGTTGGAAGCACTCTATGGTG ACATCGATGCTGTGGAGCTGTATCCTGCCCTTCTGGTAGAAAAGCCTCGGCCAGATGCCA TCTTTGGTGAAACCATGGTAGAAGTTGGAGCACCATTCTCCTTGAAAGGACTTATGGGTA ATGTTATATGTTCTCCTGCCTACTGGAAGCCAAGCACTTTTGGTGAGAAGTGGGTTTTTC AAATCATCAACACTGCCTCAATTCAGTCTCTCATCTGCAATAACGTGAAGGGCTGTCCCT TTACTTCATTCAGTGTCCAGATCCAGAGCTCATAAACAGTCACCATCAATGNCAGTT CTTCCCGTCCNGACTAGATGATATCAATCCCACAGTACTACTAANAGAACGTTCCGACTG AACTGTAGAAGTCTAATGATCATATTTANTTATTTATATGAACCATGTCTATTATTTAAN NTATTAATATATTTATATAAACTCCNTATGNTACTTAAACATCTNCTGTAACAGAAGT CAGTACTCCTGGTGCCGAAAAGGAGTCACTACTGTGAAGACTTTTATGTACTACTCTAA AGATTTGCTGTTGCTGNTAAGTTTGAAAACAGTTTTATA
Restriction Sites:	NotI-NotI
ACCN:	NM_000963
Insert Size:	4500 bp
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 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
OTI Annotation:	A TrueClone.
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:	<ol style="list-style-type: none"> 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_000963.1 , NP_000954.1

RefSeq Size:	4465 bp
RefSeq ORF:	1815 bp
Locus ID:	5743
UniProt ID:	P35354
Cytogenetics:	1q31.1
Domains:	An_peroxidase, EGF
Protein Families:	Druggable Genome
Protein Pathways:	Arachidonic acid metabolism, Pathways in cancer, Small cell lung cancer, VEGF signaling pathway
Gene Summary:	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]