

Product datasheet for **RC202245**

COX2 (PTGS2) (NM_000963) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COX2 (PTGS2) (NM_000963) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COX2
Synonyms:	COX-2; COX2; GRIPGHS; hCox-2; PGG/HS; PGHS-2; PHS-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202245 representing NM_000963
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCGCCCGCCCTGCTGCTGTGCGGGTCTGGCGCTCAGCCATACAGCAAATCCTTGCTGTTC
 ACCCATGTCAAAACCGAGGTGTATGTATGAGTGTGGGATTTGACCAGTATAAGTGCATTGTACCCGGAC
 AGGATTCTATGGAGAAAAGTCTCAACACCGGAATTTTTGACAAGAATAAAATTTTCTGAAACCCACT
 CCAAACACAGTGCCTACTACTACCCACTTCAAGGATTTTGGAACTGTGAATAACATTCCCTTCC
 TTCGAAATGCAATTATGAGTTATGTGTTGACATCCAGATCACATTTGATTGACAGTCCACCAACTTACAA
 TGCTGACTATGGCTACAAAAGCTGGGAAGCCTTCTAACCTCTCCTATTATACTAGAGCCCTTCTCCT
 GTGCTGATGATTGCCGACTCCCTGGGTGTCAAAGGTAAGGAGCAGCTTCTGATTCAAATGAGATTG
 TGGAAAAATTGCTTCTAAGAAGAAAGTTTCACTCCCTGATCCCCAGGGCTCAAACATGATGTTTGCATTCTT
 TGCCGAGCACTTACGCATCAGTTTTTCAAGACAGATCATAAGCGAGGGCCAGCTTTCACCAACGGGCTG
 GGCCATGGGGTGGACTTAAATCATATTTACGGTGAAGCTCTGGCTAGACAGCGTAAACTGCGCCTTTTCA
 AGGATGGAAAAATGAAATATCAGATAATTGATGGAGAGATGTATCCTCCACAGTCAAAGATACTCAGGC
 AGAGATGATCTACCTCCTCAAGTCCCTGAGCATCTACGGTTTGTGTGGGGCAGGAGGTCTTGGTCTG
 GTGCTGGTCTGATGATGTATGCCACAATCTGGCTGCGGGAACACAACAGAGTATGCGATGTGCTTAAAC
 AGGAGCATCCTGAATGGGGTGTAGAGCAGTTGTCCAGACAAGCAGGCTAATACTGATAGGAGAGACTAT
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 ATCCCCCTCTGCCTGACACCTTTCAAATTCATGACCAGAAATACAACATCAACAGTTTTATCTACAACAA
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 GCTGGTGGTAGGAATGTTCCACCCGAGTACAGAAAGTATCACAGGCTTCCATTGACCAGAGCAGGCAGA
 TGAAATACCAGTCTTTAATGAGTACCGCAAACGCTTTATGCTGAAGCCCTATGAATCATTTGAAGAACT
 TACAGGAGAAAAGGAAATGTCTGCAGAGTTGGAAGCACTCTATGGTGACATCGATGCTGTGGAGCTGTAT
 CCTGCCCTTCTGGTAGAAAAGCCTCGGCCAGATGCCATCTTGGTGAACCATGGTAGAAGTTGGAGCAC
 CATTCTCCTTGAAGGACTTATGGGTAATGTTATATGTTCTCCTGCTACTGGAAGCCAAGCACTTTTGG
 TGGAGAAGTGGGTTTTCAAATCATCAACTGCCTCAATTCAGTCTCTCATCTGCAATAACGTGAAGGGC
 TGTCCTTTACTTCAATCAGTGTCCAGATCCAGAGCTCATAAAACAGTCACCATCAATGCAAGTTCTT
 CCCGCTCCGACTAGATGATATCAATCCACAGTACTACTAAAAGAACGTTGACTGAAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202245 representing NM_000963
 Red=Cloning site Green=Tags(s)

MLARALLLCAVLALSHANPCCSHPCQNRGVCMSVGFQYKCDCTRTGFYGENCSTPEFLTRIKLFLKPT
 PNTVHYILTHFKGFVNVNIPFLRNAIMSYVLTSRSHLIDSPPTYNADYGYKSWEAFSNLSYYTRALPP
 VPDDCPTPLGVKGGKQLPDSNEIVEKLLRRKFIIPDPQGSNMMFAFFAQHFTHQFFKTDHKRGAFTNGL
 GHGVDLNHIYGETLARQRKRLRFKDGKMKYQIIDGEMYPPTVKDTQAEMIYPPQVPEHLRFVAVGQEVFGL
 VPGMLMYATIWLREHNRVCDVLKQEHPEWGDEQLFQTSRLILIGETIKIVIEDYVQHLSGYHFKLKFDPE
 LLFNKQFYQNRIAAEFNTLYHWHPLLPTDFQIHDQKYNVYQFIYNNISILLEHGITQFVESFTRQIAGR
 VAGGRNVPPAVQKVSQASIDQSRQMKYQSFNEYRKRFLKPYESFEELTGEKEMSAEALYGDIDAVELY
 PALLVEKPRPDAIFGETMVEVGAPFSLKGLMGNVICSPAYWKPSTFGGEVGFQIINTASIQLICNNVKG
 CPFTSFSVPPELIKTVTINASSRSGLDDINPTVLLKERSTEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3718_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000963

ORF Size: 1812 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_000963.4](#)

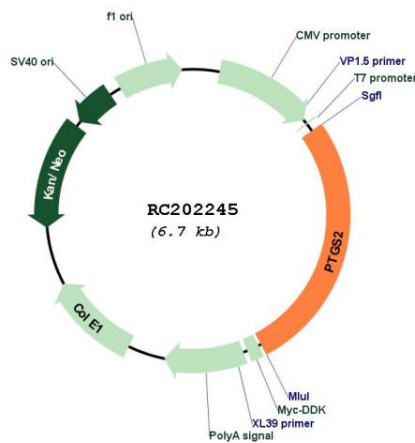
RefSeq Size: 4465 bp

RefSeq ORF: 1815 bp

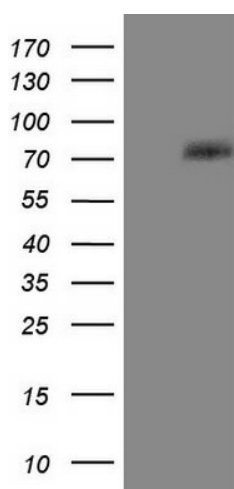
Locus ID: 5743

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
MW: 69 kDa
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]

Product images:



Circular map for RC202245



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PTGS2 (Cat# RC202245, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PTGS2(Cat# [TA805286]).