

Recombinant Human PTGS2 protein, FLAG/His-tagged

Cat. No. PTGS2-32H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PTGS2(1-604 aa) fused with FLAG/His tag at C-terminal was expressed in Insect cells.
Species	Human
Source	Insect Cells
ProteinLength	1-604 a.a.
Description	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.
Form	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 0.04% Tween-20, 20% glycerol, 80 µg/ml FLAG peptide, 300 µM diethyldithiocarbamate and 0.08% Triton X-100.
Molecular Mass	71 kDa
AA Sequence	MLARALLLCAVLALSHTANPCCSHPCQNRGVCMSVGFDQYKCDCTRTGFYGENCS TPEFLTRIKLFLKPTPNTVH YILTHFKGFWNVVNNIPFLRNAIMSYVLTSRSHLIDSP TYNADYGYKSWEAFSNLSYYTRALPPVPDDCPTPL GVKGKKQLPDSNEIVEKLLLR

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RKFIPDPQGSNMMFAFFAQHFTHQFFKTDHKRGPFTNGLGHGVLDLNHIYGETL AR
 QRKLRLFKDGKMKYQIIDGEMYPPTVKDTQAEMIIYPPQVPEHLRFVAGQEVFGLVP
 GLMMYATIWLREHNRV CDVLKQEHPEWGDEQLFQTSRLILIGETIKIVIEDYVQHLSG
 YHFKLKFDPPELLFNKQFQYQNRIAAEFNTLYH WHPLLPTDFQIHDQKYNYYQQFIYNN
 SILLEHGITQFVESFTRQIAGRVAGGRNVPPAVQKVSQASIDQSRQMKYQ SFNEYR
 KRFMLKPYESFEELTGEKEMSAELEALYGDIDAVELYPALLVEKPRPDIFGETMVEV
 GAPFSLKGLM GNVICSPAYWKPSTFGGEVGFQIINTASISLICNNVKGCPFTSFSV
 PDPELIKTVTINASSSRSGLDDINPTVLLKERSTELDYKDDDDKHHHHHH

Purity	≥90%
Applications	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Storage	At least 6 months at -80 centigrade. Avoid freeze/thaw cycles. Storing diluted enzyme is not recommended, if necessary, use carrier protein (BSA 0.1 – 0.5%).
Concentration	0.33 mg/ml

GENE INFORMATION

Gene Name	PTGS2 prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase) [Homo sapiens]
Official Symbol	PTGS2
Synonyms	PTGS2; prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase); prostaglandin G/H synthase 2; COX2; PHS II; PGH synthase 2; cyclooxygenase 2b; prostaglandin H2 synthase 2; COX-2; PHS-2; PGG/HS; PGHS-2; hCox-2; GRIPGHS;
Gene ID	5743

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mRNA Refseq	NM_000963
Protein Refseq	NP_000954
MIM	600262
UniProt ID	P35354
Chromosome Location	1q25.2-q25.3
Pathway	Arachidonic acid metabolism, organism-specific biosystem; Arachidonic acid metabolism, conserved biosystem; Biological oxidations, organism-specific biosystem; C-MYB transcription factor network, organism-specific biosystem; COX reactions, organism-specific biosystem
Function	enzyme binding; heme binding; heme binding; lipid binding; metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen; peroxidase activity; peroxidase activity; peroxidase activity; prostaglandin-endoperoxide synthase activity;