

Active Recombinant Human PTGS2 protein, His-tagged

Cat. No. PTGS2-30H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PTGS2 fused with His tag at N-terminal was expressed in Insect cells.
Species	Human
Source	Insect Cells
Description	COX-2 catalyzes the conversion of arachidonic acid to prostaglandin H2 (the first step in the biosynthesis of prostaglandins, thromboxanes, and prostacyclins). It is the inducible form of cyclooxygenase, induced by phorbol esters, lipopolysaccharides, and cytokines. COX-2 is upregulated in the neovasculature of malignant tumors. Inhibition of COX-2 with nonsteroidal anti-inflammatory drugs (NSAIDs) is associated with decreased tumor growth.
Form	Solution in 80 mM Tris-HCl, pH 8.0 with 0.1% TWEEN® 20 and 300 µM diethyldithiocarbamate and 10% glycerol.
Bio-activity	> 8000 units/mg
Molecular Mass	dimer subunit mol wt 70-74 kDa
Purity	>70% (SDS-PAGE)
Unit Definition	One unit will consume 1.0 nanomole of oxygen per minute at pH 8 at 37 centigrade.

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Storage	Store at -70 centigrade
Shipping	dry ice
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
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

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biosystem; C-MYB transcription factor network, organism-specific biosystem; COX reactions, organism-specific biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem; Calcium signaling in the CD4+ TCR pathway, 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;

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