# Active Recombinant Human PTGS2 Protein, His-tagged

**Cat. No.** PTGS2-080H **Lot. No.** (See product label)

## SPECIFICATION

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|---|---|
| **Product Overview** | Active recombinant N-terminal His-tagged COX-2N580A mutant (20-604) was purified from insect cells. |
| **Species** | Human |
| **Source** | Insect Cells |
| **ProteinLength** | 20-604 |
| **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. |
| **Bio-activity** | >8000 U/mg |
| **Molecular Mass** | 67.9 kDa |
| **Purity** | ≥75% estimated by SDS-PAGE |
| **Unit Definition** | One unit of enzyme consumes one nanomole of oxygen per minute at 37 centigrade in 0.1 M Tris-HCl buffer, pH 8.0, containing 100 μM arachidonate, 5 mM EDTA, 2 mM |

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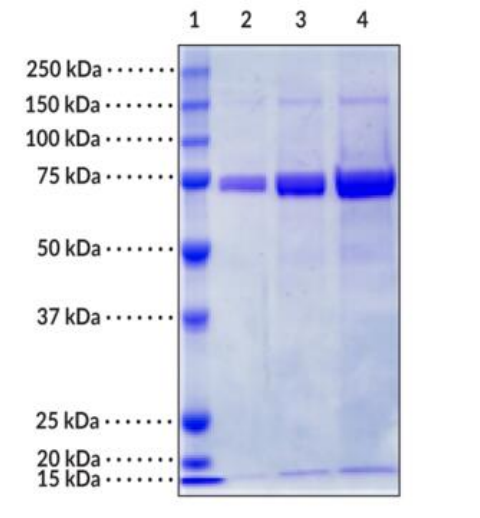
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|---|---|
| | phenol, and 1 μM hematin. The cyclooxygenase activity of COX-2 was measured at 37 centigrade by monitoring oxygen consumption using a Gilson Model 5/6 H oxygraph equipped with a Clark oxygen electrode. |
| **Stability** | ≥ 1 year |
| **Storage** | At -80 centigrade. |
| **Storage Buffer** | 80 mM Tris, pH 8.0, with 0.3 mM DDC, 0.01% Tween 20, and 10% glycerol |

## GENE INFORMATION

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|---|---|
| **Gene Name** | PTGS2 prostaglandin-endoperoxide synthase 2 [ Homo sapiens (human) ] |
| **Official Symbol** | PTGS2 |
| **Synonyms** | PTGS2; prostaglandin-endoperoxide synthase 2; COX2; COX-2; PHS-2; PGG/HS; PGHS-2; hCox-2; GRIPGHS; prostaglandin G/H synthase 2; PGH synthase 2; PHS II; cyclooxygenase 2; cyclooxygenase 2b; prostaglandin H2 synthase 2; prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase); EC 1.14.99.1 |
| **Gene ID** | 5743 |
| **mRNA Refseq** | NM_000963 |
| **Protein Refseq** | NP_000954 |
| **MIM** | 600262 |
| **UniProt ID** | P35354 |

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**SDS-PAGE analysis of COX-2**




Lane 1: MW Markers

Lane 2: COX-2 (2 μg)

Lane 3: COX-2 (5 μg)

Lane 4: COX-2 (10 μg)

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