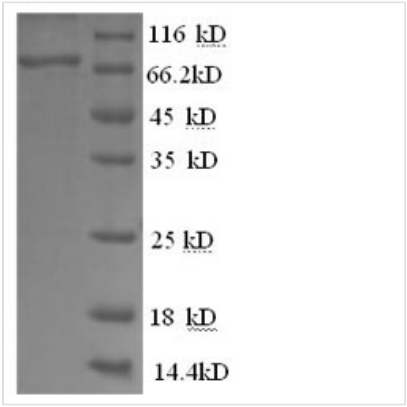
# Recombinant Human Prostaglandin G/H synthase 2 (PTGS2), partial

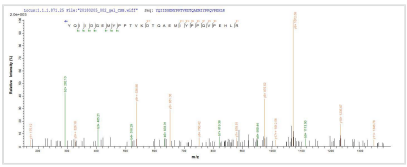
| | |
|---|---|
| **Product Code** | CSB-EP018986HU |
| **Relevance** | Converts arachidonate to prostaglandin H2 (PGH2), a committed step in prostanoid synthesis. Constitutively expressed in some tissues in physiological conditions, such as the endothelium, kidney and brain, and in pathological conditions, such as in cancer. PTGS2 is responsible for production of inflammatory prostaglandins. Up-regulation of PTGS2 is also associated with increased cell adhesion, phenotypic changes, resistance to apoptosis and tumor angiogenesis. In cancer cells, PTGS2 is a key step in the production of prostaglandin E2 (PGE2), which plays important roles in modulating motility, proliferation and resistance to apoptosis. |
| **Abbreviation** | Recombinant Human PTGS2 protein, partial |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | P35354 |
| **Alias** | Cyclooxygenase-2 ;COX-2;PHS IIProstaglandin H2 synthase 2 ;PGH synthase 2 ;PGHS-2;Prostaglandin-endoperoxide synthase 2 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Sequence** | ANPCCSHPCQNRGVCMSVGFDQYKCDCTRTGFYGENCSTPEFLTRIKLFLKP TPNTVHYILTHFKGFWNVVNNIPFLRNAIMSYVLTSRSHLIDSPPTYNADYGYK SWEAFSNLSYYTRALPPVPDDCPTPLGVKGKKQLPDSNEIVEKLLLRRKFIPDP QGSNMMFAFFAQHFTHQFFKTDHKRGPAFTNGLGHGVDLNHIYGETLARQRK LRLFKDGKMKYQIIDGEMYPPTVKDTQAEMIYPPQVPEHLRFAVGQEVFGLVP GLMMYATIWLREHNRVCDVLKQEHPEWGDEQLFQTSRLILIGETIKIVIEDYVQ HLSGYHFKLKFDPELLFNKQFQYQNRIAAEFNTLYHWHPLLPDTFQIHDQKYN YQQFIYNNSILLEHGITQFVESFTRQIAGRVAGGRNVPPAVQKVSQASIDQSRQ MKYQSFNEYRKRFMLKPYESFEELTGEKEMSAELEALYGDIDAVELYPALLVE KPRPDAIFGETMVEVGAPFSLKGLMGNVICSPAYWKPSTFGGEVGFQIINTASI QSLICNNVKGCPFTSFSVPDPELIKTVTINASSSRSGLDDINPTVLLKERS |
| **Research Area** | Metabolism |
| **Source** | E.coli |
| **Target Names** | PTGS2 |
| **Expression Region** | 18-601aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at |

| | |
|---|---|
| | 4°C for up to one week. |
| **Tag Info** | N-terminal 6xHis-tagged |
| **Mol. Weight** | 70.9kDa |
| **Protein Length** | Partial |

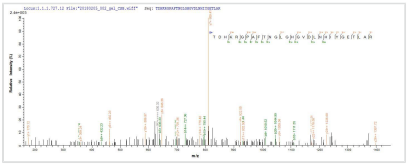
**Image**




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP018986HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) PTGS2.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP018986HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) PTGS2.

**Description**

The expression region of this recombinant Human PTGS2 covers amino acids 18-601. The calculated molecular weight for this PTGS2 protein is 70.9 kDa. This PTGS2 recombinant protein is manufactured in e.coli. The PTGS2 coding gene included the N-terminal 6xHis tag, which simplifies the detection and purification processes of the recombinant PTGS2 protein in following stages of expression and purification.

Prostaglandin G/H synthase 2 (PTGS2) is an enzyme involved in the synthesis of prostaglandins, which are lipid signaling molecules with various physiological effects. The main function of PTGS2 is to convert arachidonic acid into prostaglandin H2 (PGH2), a precursor for the synthesis of various prostaglandins. PTGS2 plays a crucial role in inflammation, as it is often induced in response to inflammatory stimuli. It is involved in the regulation of immune responses, cell proliferation, and tissue repair. Dysregulation of PTGS2 has been implicated in various pathological conditions, including cancer, inflammatory disorders, and cardiovascular diseases. Research areas related to PTGS2 encompass understanding its role in inflammation, elucidating its contribution to different disease states, and exploring its potential as a therapeutic target.

| | |
|---|---|
| **Reconstitution** | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference. |
| **Shelf Life** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br>Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |