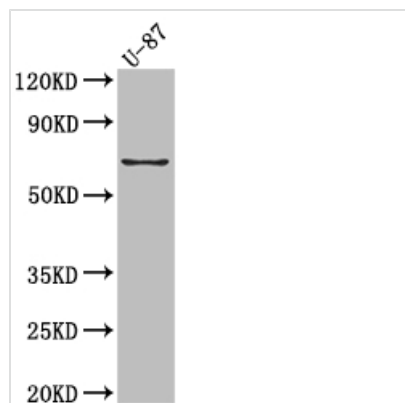




PTGS2 Recombinant Monoclonal Antibody

Product Code	CSB-RA920283A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P35354
Immunogen	A synthesized peptide derived from human COX2
Species Reactivity	Human
Tested Applications	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Metabolism; Signal transduction
Gene Names	PTGS2
Clone No.	10B2

Image



Western Blot

Positive WB detected in: U-87 whole cell lysate

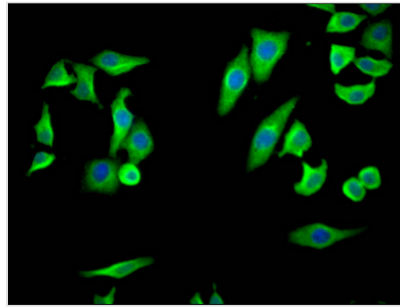
All lanes: COX2 Antibody at 1:1000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 69 kDa

Observed band size: 69 kDa



Immunofluorescence staining of HepG2 Cells with CSB-RA920283A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

To produce the PTGS2 recombinant antibody, four steps are taken: sequencing the PTGS2 monoclonal antibody gene, cloning it into a plasmid vector, inserting the recombinant vector into a host cell line, and purifying the PTGS2 recombinant monoclonal antibody using affinity chromatography. The PTGS2 monoclonal antibody comes from the PTGS2 antibody-producing hybridomas and is produced using a synthesized peptide from human PTGS2 as an immunogen. The PTGS2 recombinant monoclonal antibody is useful for detecting human PTGS2 protein in ELISA, WB, and IF applications.

The PTGS2 protein, also known as cyclooxygenase-2 (COX-2), is an enzyme that plays a crucial role in the production of prostaglandins, which are hormone-like lipid compounds involved in various physiological and pathological processes, including inflammation, pain, and fever. PTGS2 is induced by various stimuli, such as cytokines, growth factors, and bacterial lipopolysaccharides, and catalyzes the conversion of arachidonic acid to prostaglandin H₂ (PGH₂). PGH₂ is further metabolized by downstream enzymes to produce various prostaglandins, including prostaglandin E₂ (PGE₂), which is one of the most abundant and biologically active prostaglandins in the body. PGE₂ has various physiological and pathological effects, including regulation of inflammation, immune response, and blood pressure.