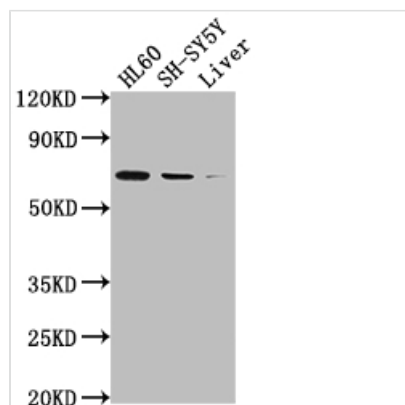




PTGS1 Recombinant Monoclonal Antibody

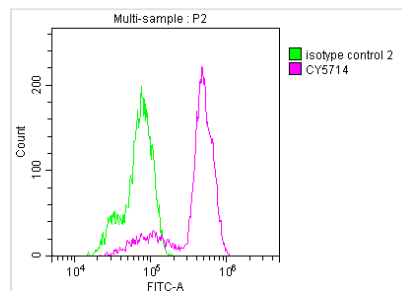
Product Code	CSB-RA918236A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P23219
Immunogen	A synthesized peptide derived from human COX1
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB, FC; Recommended dilution: WB:1:500-1:5000, FC:1:20-1:200
Relevance	Converts arachidonate to prostaglandin H2 (PGH2), a committed step in prostanoid synthesis. Involved in the constitutive production of prostanoids in particular in the stomach and platelets. In gastric epithelial cells, it is a key step in the generation of prostaglandins, such as prostaglandin E2 (PGE2), which plays an important role in cytoprotection. In platelets, it is involved in the generation of thromboxane A2 (TXA2), which promotes platelet activation and aggregation, vasoconstriction and proliferation of vascular smooth muscle cells.
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; Immunology; Metabolism; Signal transduction
Gene Names	PTGS1
Clone No.	6B6

Image



Western Blot

Positive WB detected in: HL60 whole cell lysate, SH-SY5Y whole cell lysate, Mouse liver tissue
 All lanes: PTGS1 antibody at 1:2000
 Secondary
 Goat polyclonal to rabbit IgG at 1/50000 dilution
 Predicted band size: 69, 65, 62, 57, 72, 73 kDa
 Observed band size: 72 kDa



Overlay histogram showing Hela cells stained with CSB-RA918236A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody ($1\mu\text{g}/1 \times 10^6$ cells) for 1 h at 4?. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4?. Control antibody (green line) was Rabbit IgG ($1\mu\text{g}/1 \times 10^6$ cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The PTGS1 recombinant monoclonal antibody was prepared using a combination of protein technology and DNA recombinant technology. Initially, a synthetic peptide derived from human PTGS1 was used to immunize mice. After a specific duration, the mice's spleen was removed under aseptic conditions, and the total RNA of spleen cells was extracted. The RNA was used for reverse transcription to synthesize cDNA which served as the template for the PTGS1 antibody gene PCR amplification. The gene obtained was introduced into a vector and then transfected into host cells for culture. The PTGS1 recombinant monoclonal antibody was purified from the supernatant of cell culture using affinity chromatography. It can be utilized for human and mouse PTGS1 protein detection in ELISA, WB, and FC experiments.

The PTGS1 protein, also known as cyclooxygenase-1 (COX-1), is an enzyme involved in the synthesis of prostaglandins. Prostaglandins are hormone-like substances that play various roles in the body, including regulation of inflammation, blood clotting, and stomach acid production. PTGS1 is constitutively expressed in many cells and tissues, meaning it is present at a relatively constant level and is involved in the maintenance of basic cellular functions. It is particularly abundant in platelets, where it plays a key role in blood clotting. Nonsteroidal anti-inflammatory drugs (NSAIDs), such as aspirin, inhibit the activity of PTGS1, which can reduce inflammation and pain, but can also increase the risk of bleeding.