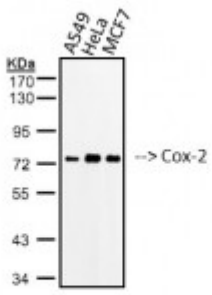
Anti-Cox-2 antibody



Western Blot (WB) analysis of 1. A549 2. HeLa 3. MCF7 using Cox-2 Polyclonal Antibody. (STJ92438)

Description	Cox-2 is a protein encoded by the PTGS2 gene which is approximately 68,9 kDa. Cox-2 is localised to the endoplasmic reticulum membrane. It is involved in PEDF induced signalling, arachidonic acid metabolism, aspirin triggered resolvin E biosynthesis and cytokine signalling. It is the key enzyme in prostaglandin biosynthesis, and acts both as a dioxygenase and as a peroxidase. It is regulated by specific stimulatory events, suggesting that it is responsible for the prostanoid biosynthesis involved in inflammation and mitogenesis. Cox-2 is expressed in cytokines and mitogens. Mutations in the PTGS2 gene may result in colorectal adenoma and chronic pain. STJ92438 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of Cox-2 protein.

Model	STJ92438
Host	Rabbit
Reactivity	Human
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human Cox-2
Immunogen Region	530-610 aa, C-terminal
Gene ID	5743
Gene Symbol	PTGS2
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	Cox-2 Polyclonal Antibody detects endogenous levels of Cox-2 protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-

	chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Prostaglandin G/H synthase 2 Cyclooxygenase-2 COX-2 PHS II Prostaglandin H2 synthase 2 PGH synthase 2 PGHS-2 Prostaglandin-endoperoxide synthase 2
Molecular Weight	70 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:9605OMIM:600262
Alternative Names	Prostaglandin G/H synthase 2 Cyclooxygenase-2 COX-2 PHS II Prostaglandin H2 synthase 2 PGH synthase 2 PGHS-2 Prostaglandin-endoperoxide synthase 2
Function	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.
Cellular Localization	Microsome membrane. Peripheral membrane protein. Endoplasmic reticulum membrane. Peripheral membrane protein.
Post-translational Modifications	S-nitrosylation by NOS2 (iNOS) activates enzyme activity. S-nitrosylation may take place on different Cys residues in addition to Cys-526.