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COX1 Antibody

Rabbit mAb
Catalog # AP90717

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P23219
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	COX-1; COX1; COX3; Cyclooxygenase-1; PCOX1; PGG/HS; PGH synthase 1; PGH1; PGHS1; PHS1; Prostaglandin G/H synthase 1; Prostaglandin H2 synthase 1; PTGHS; PTGS1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	68686

Additional Information

Dilution	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human COX1
Description	Cyclooxygenase-1 May play an important role in regulating or promoting cell proliferation in some normal and neoplastically transformed cells. Belongs to the prostaglandin G/H synthase family. Homodimer. 2 isoforms of the human protein are produced by alternative splicing.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

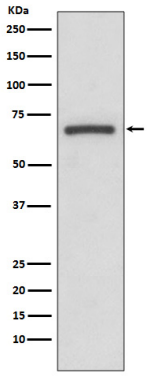
Name	PTGS1 (HGNC:9604)
Function	Dual cyclooxygenase and peroxidase that plays an important role in the biosynthesis pathway of prostanoids, a class of C20 oxylipins mainly derived from arachidonate ((5Z,8Z,11Z,14Z)- eicosatetraenoate, AA, C20:4(n-6)), with a particular role in the inflammatory response. The cyclooxygenase activity oxygenates AA to the hydroperoxy endoperoxide prostaglandin G2 (PGG2), and the peroxidase activity reduces PGG2 to the hydroxy endoperoxide prostaglandin H2 (PGH2), the precursor of all 2-series prostaglandins and thromboxanes. This complex transformation is initiated by abstraction of hydrogen at carbon 13 (with S-stereochemistry), followed by insertion of molecular O2 to form the endoperoxide bridge between carbon 9 and 11 that defines prostaglandins. The insertion of a second molecule of O2 (bis-oxygenase activity) yields a hydroperoxy group in PGG2 that is then reduced to PGH2 by two electrons (PubMed:7947975). 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 (Probable). Can also use linoleate (LA, (9Z,12Z)- octadecadienoate, C18:2(n-6)) as substrate and produce hydroxyoctadecadienoates (HODEs) in a regio- and stereospecific manner, being (9R)-HODE ((9R)-hydroxy-(10E,12Z)-octadecadienoate) and (13S)- HODE ((13S)-hydroxy-(9Z,11E)-octadecadienoate) its major products (By similarity).

Cellular Location

Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein

Images



Western blot analysis of COX1 expression in A431 cell lysate.

Image not found : 202311/AP90717-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human uterus, using COX1 Antibody.