

COX1 Antibody
Rabbit mAb
Catalog # AP90717

Specification

COX1 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB, IHC, FC, ICC, IP |
| Primary Accession | P23219 |
| Reactivity | Rat |
| 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 Da |

COX1 Antibody - Additional Information

| | |
|------------------------------|--|
| 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. |

COX1 Antibody - 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

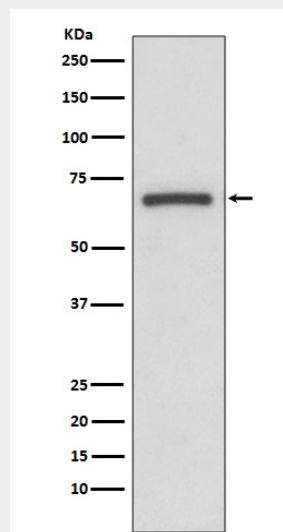
Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein

COX1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

COX1 Antibody - Images



Western blot analysis of COX1 expression in A431 cell lysate.