

**Anti-PGHS-1 Antibody**  
Rabbit polyclonal antibody to PGHS-1  
Catalog # AP59682

**Specification**

---

**Anti-PGHS-1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P23219</a>
Other Accession	<a href="#">P22437</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	68686

**Anti-PGHS-1 Antibody - Additional Information**

Gene ID 5742

**Other Names**

COX1; Prostaglandin G/H synthase 1; Cyclooxygenase-1; COX-1; Prostaglandin H2 synthase 1; PGH synthase 1; PGHS-1; PHS 1; Prostaglandin-endoperoxide synthase 1

**Target/Specificity**

Recognizes endogenous levels of PGHS-1 protein.

**Dilution**

WB~~WB (1/500 - 1/1000)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-PGHS-1 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 O<sub>2</sub> (bis-oxygenase activity) yields a hydroperoxy group in PGG<sub>2</sub> that is then reduced to PGH<sub>2</sub> by two electrons (PubMed:<a href="http://www.uniprot.org/citations/7947975" target="\_blank">7947975</a>). 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 E<sub>2</sub> (PGE<sub>2</sub>), which plays an important role in cytoprotection. In platelets, it is involved in the generation of thromboxane A<sub>2</sub> (TXA<sub>2</sub>), which promotes platelet activation and aggregation, vasoconstriction and proliferation of vascular smooth muscle cells (Probable). Can also use linoleate (LA, (9Z,12Z)- octadecadienoate, C<sub>18</sub>: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

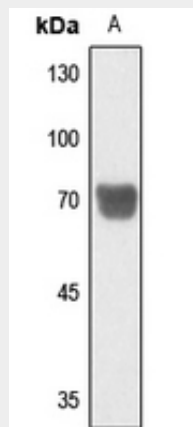
Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein

#### Anti-PGHS-1 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](#)

#### Anti-PGHS-1 Antibody - Images



Western blot analysis of PGHS-1 expression in HeLa (A) whole cell lysates.

#### Anti-PGHS-1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PGHS-1. The exact sequence is proprietary.