

Cox-1 Blocking Peptide
Catalog # PBV10149b**Specification**

Cox-1 Blocking Peptide - Product Information

Primary Accession	P22437
Gene ID	19224
Calculated MW	69042

Cox-1 Blocking Peptide - Additional Information**Gene ID** 19224**Application & Usage**

The peptide is used for blocking the antibody activity of active Cox-1. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30 minutes at 37°C

Other Names

Prostaglandin G/H synthase 1, 1.14.99.1, Cyclooxygenase-1, COX-1, Prostaglandin H2 synthase 1, PGH synthase 1, PGHS-1, PHS 1, Prostaglandin-endoperoxide synthase 1, Ptgs1, Cox-1, Cox1

Target/Specificity

Cox-1

Formulation

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 0.1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Cox-1 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

Cox-1 Blocking Peptide - Protein Information**Name** Ptgs1 {ECO:0000312|MGI:MGI:97797}**Synonyms** Cox-1, Cox1**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. 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. 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.

Cellular Location

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

Cox-1 Blocking Peptide - 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](#)

Cox-1 Blocking Peptide - Images