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Cox1 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50673

Specification

Cox1 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P23219
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**69 65 62 56 72 KDa**
Antigen Region	**568-599**

Cox1 Antibody - Additional Information

Gene ID 5742

Other Names
Prostaglandin G/H synthase 1, Cyclooxygenase-1, COX-1, Prostaglandin H2 synthase 1, PGH synthase 1, PGHS-1, PHS 1, Prostaglandin-endoperoxide synthase 1, PTGS1, COX1

Dilution
WB~~1:1000
IHC~~1:50-1:100

Format
Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions
-20℃

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:<a

href="http://www.uniprot.org/citations/7947975" target="_blank">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).

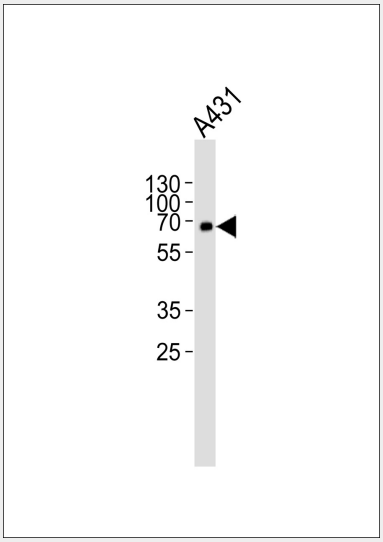
Cellular Location
Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein

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 Cytomety
- Cell Culture

Cox1 Antibody - Images



Western blot analysis of lysate from A431 cell line,using Cox1 Antibody(AP50673). AP50673 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.

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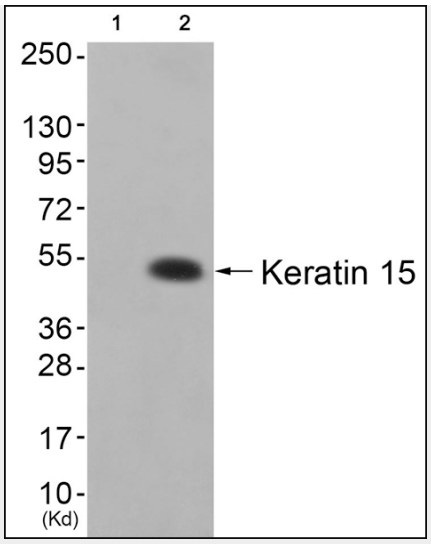
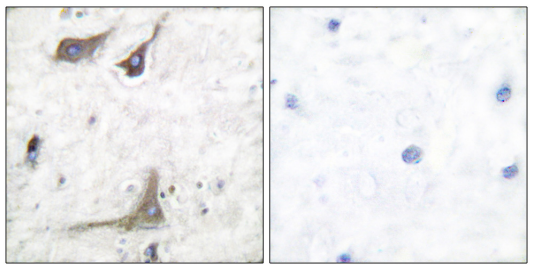


Western blot analysis of extracts from HuvEc cells (Lane 2), using Cox1 Antibody. The lane on the left is treated with systhesized peptide.



Immunohistochemical analysis of paraffin-embedded human brain tissue using COX1 antibody .

Cox1 Antibody - Background

May play an important role in regulating or promoting cell proliferation in some normal and neoplastically transformed cells.

Cox1 Antibody - References

Yokoyama C.,et al.Biochem. Biophys. Res. Commun. 165:888-894(1989).
Funk C.D.,et al.FASEB J. 5:2304-2312(1991).
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