Product Information Sheet

Polyclonal Anti-Cyclooxygenase-1, *COX1*

Catalogue No. PA1027

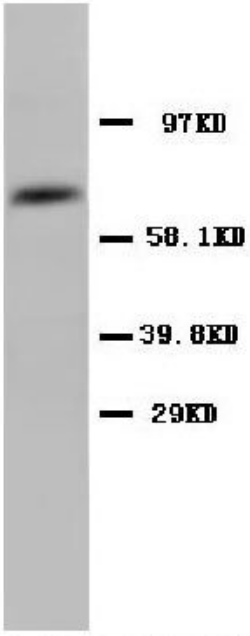
Lot No. 05L01

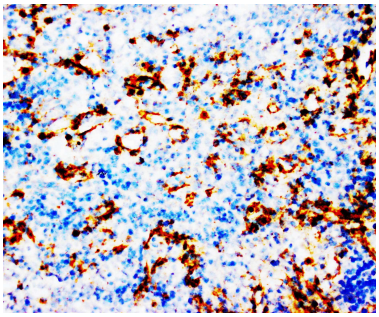
Ig type: rabbit IgG

Size: 100µg/vial

Specificity
Human, mouse, rat.
No cross reactivity with other proteins.

Recommended application
Western blot
Immunohistochemistry(P)





Immunogen
A synthetic peptide corresponding to a sequence near the N-terminal of human PTGS1(COX1), different to the related rat and mouse sequence by two amino acids.

Purity
Immunogen affinity purified.

Application
Western blot
At 2µg/ml with the appropriate system to detect COX1 in cells and tissues.
Immunohistochemistry(P)
At 1-2µg/ml to detect COX1 in formalin fixed and paraffin embedded tissues. Boiling the sections is required.
Other applications have not been tested.
Optimal dilutions should be determined by end user.

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Reconstitution
0.2ml of distilled water will yield a concentration of 500µg/ml.

To reorder contact us at:
Antagene, Inc.
Toll Free: 1(866)964-2589
email: Info@antageneinc.com

Storage

At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for longer time.

BACKGROUND

Cyclooxygenase 1(COX1), also known as Prostaglandin-endoperoxide synthase (PTGS1) or mitochondrial cytochrome c oxidase subunit 1, is the key enzyme in prostaglandin biosynthesis. The gene was approximately 40 kb long, with 11 protein-coding exons. There were 599 amino acid residues with a calculated molecular mass of approximately 68 kD. By analysis of a human/hamster somatic hybrid DNA panel, Funk et al. (1991) demonstrated that the PTGS1 gene maps to chromosome 9. Human prostaglandin endoperoxide synthase exhibited 91% amino acid identity with the sheep enzyme. Prostaglandin synthase 1 gene disruption in mice reduces arachidonic acid-induced inflammation and indomethacin-induced gastric ulceration.

REFERENCE

1. Yokoyama, C.; Tanabe, T. : Cloning of human gene encoding prostaglandin endoperoxide synthase and primary structure of the enzyme. *Biochem. Biophys. Res. Commun.* 165: 888-894, 1989.

2. Langenbach, R.; Morham, S. G.; Tiano, H. F.; Loftin, C. D.; Ghanayem, B. I.; Chulada, P. C.; Mahler, J. F.; Lee, C. A.; Goulding, E. H.; Kluckman, K. D.; Kim, H. S.; Smithies, O. : Prostaglandin synthase 1 gene disruption in mice reduces arachidonic acid-induced inflammation and indomethacin-induced gastric ulceration. *Cell* 83: 483-492, 1995.