COX-1 (mouse) Polyclonal Antibody
Item No. 160109

Overview and Properties

Contents: This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms: Cyclooxygenase 1, PGHS-1, Prostaglandin Endoperoxide Synthase 1, Prostaglandin G/H Synthase 1, Prostaglandin H2 Synthase 1
Immunogen: Peptide from the internal region of mouse COX-1
Cross Reactivity: (-) COX-2
Species Reactivity: (+) Mouse and ovine; (-) Human; other species not tested
Uniprot No.: P22437
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Storage Buffer: PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host: Rabbit
Application: Western blot; the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image

Lane 1: Rat brain homogenate (30 µg)
**PRODUCT INFORMATION**

**Description**

Cyclooxygenase 1 (COX-1) is a bifunctional enzyme that exhibits both COX and peroxidase activities.\(^1\,^2\) It is composed of an N-terminal signal peptide, an EGF-like domain, a membrane binding domain, a catalytic domain, and a C-terminal tail.\(^3\) COX-1 is constitutively expressed in the gastrointestinal tract, kidney, spleen, liver, and lung and localizes to the endoplasmic reticulum.\(^4\,^5\) The COX component converts arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) to a hydroperoxyl endoperoxide prostaglandin G\(_2\) (PGG\(_2\); Item No. 17010) and the peroxidase component reduces the endoperoxide to the corresponding alcohol PGH\(_2\) (Item No. 17020), the precursor of PGs, thromboxanes, and prostacyclins.\(^1\,^2\) COX-1 is the target of many non-steroidal anti-inflammatory drugs (NSAIDs) and is responsible for the undesirable gastrointestinal and renal side effects, such as ulcer formation and reductions in the glomerular filtration rate, respectively.\(^6\,^7\) Cayman’s COX-1 (mouse) Polyclonal Antibody can be used for Western blot (WB).

**References**