PRODUCT INFORMATION

COX-1 (ovine) Polyclonal Antibody
Item No. 160108

Overview and Properties

Contents: This vial contains 200 µl of lyophilized antiserum.
Synonyms: Cyclooxygenase-1, PGHS-1. Prostaglandin Endoperoxide Synthase 1, Prostaglandin G/H Synthase 1, Prostaglandin H2 Synthase 1
Immunogen: Peptide from an internal region of ovine COX-1
Cross Reactivity: (-) Ovine, human, and mouse COX-2
Species Reactivity: (+) Human, bovine, ovine, and porcine; (-) Mouse and rat COX-1
Uniprot No.: P05979
Form: Solid
Storage: -20°C (as supplied)
Storage Buffer: Lyophilized from serum, resuspend in 200 µl double distilled water.
Stability: ≥1 year
Host: Rabbit
Applications: Western blot (WB); the recommended starting dilution for WB is 1:500. Suitable for immunofluorescence and immunohistochemistry working dilution should be determined empirically.

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 G2 (PGG2; Item No. 17010) and the peroxidase component reduces the endoperoxide to the corresponding alcohol PGH2 (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 (ovine) Polyclonal Antiserum can be used for Western blot (WB). The antibody recognizes COX-1 at 70 kDa from human, porcine, bovine endothelial, and ovine seminal vesicle samples.

References