PRODUCT INFORMATION

COX-1 Monoclonal FITC Antibody (Clone CX111)
Item No. 160111

Overview and Properties

Contents: This vial contains 250 µg of FITC-labeled monoclonal antibody.
Synonyms: Cyclooxygenase 1, PGHS-1, Prostaglandin Endoperoxide Synthase 1, Prostaglandin G/H Synthase 1, Prostaglandin H2 Synthase 1
Immunogen: Purified ovine COX-1
Cross Reactivity: (+) Ovine COX-2
Species Reactivity: (+) Human, bovine, mouse, ovine, and rat; other species not tested
Uniprot No.: P05979
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Storage Buffer: PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone: CX111
Host: Mouse
Application: Flow cytometry (FC); the recommended starting dilution is 1:50. Other applications were not tested, therefore optimal working concentration/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 hydroperoxy 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 Monoclonal FITC Antibody (Clone CX111) is composed of an anti-COX-1 monoclonal antibody conjugated to fluorescein isothiocyanate (FITC; Item No. 33264) and can be used for flow cytometry (FC).

References