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 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 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

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