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-1; (+) Human, ovine COX-2; (-) Mouse 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:	≥2 years
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

1. Nugteren, D.H. and Hazelhof, E. *Biochim. Biophys. Acta* **326(3),** 448-461 (1973).
2. Hamberg, M. and Samuelsson, B. *Proc. Natl. Acad. Sci. USA* **70(3),** 899-903 (1973).
3. Smith, W.L. and DeWitt, D.L. *Adv. Immunol.* **62,** 167-215 (1995).
4. Seibert, K., Zhang, Y., Leahy, K., *et al. Proc. Natl. Acad. Sci. USA* **91(25),** 12013-12017 (1994).
5. Morita, I., Schindler, M., Regier, M.K., *et al. The Journal of Biological Chemisty* **270(18),** 10902-10908 (1995).
6. Gierse, J.K., Hauser, S.D., Creely, D.P., *et al. Biochem. J.* **305(Pt. 2),** 379-484 (1995).
7. Frölich, J.C. *Trends Pharmacol. Sci.* **18(1),** 30-34 (1997).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/02/2026

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM