

# PRODUCT INFORMATION



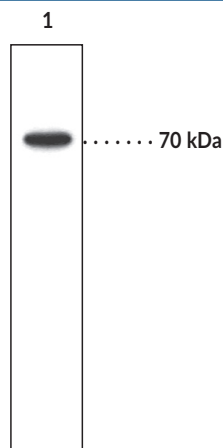
## COX-1 Monoclonal Antibody (Clone CX111)

Item No. 160110

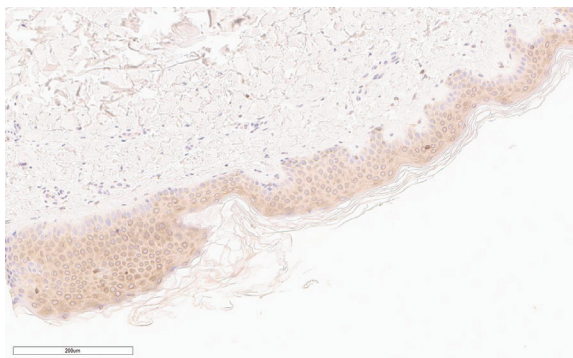
### Overview and Properties

<b>Contents:</b>	This vial contains 500 µg of purified monoclonal antibody.
<b>Synonyms:</b>	Cyclooxygenase 1, Prostaglandin Endoperoxide Synthase 1, Prostaglandin G/H Synthase 1, Prostaglandin H2 Synthase 1, PGHS-1
<b>Immunogen:</b>	Purified ovine COX-1
<b>Cross Reactivity:</b>	(+) Human, ovine COX-2; (-) Mouse COX-2
<b>Species Reactivity:</b>	(+) Human, mouse, rat, bovine; (-) Other species not tested
<b>Uniprot No.:</b>	P05979
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥3 years
<b>Storage Buffer:</b>	PBS, pH 7.2, with 0.01% sodium azide
<b>Clone:</b>	CX111
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2b
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



Lane 1: Ovine COX-1 (microsomal fraction)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human skin tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with COX-1 Monoclonal Antibody (Clone CX111) (Item No. 160110) at a 1:200 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

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.

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## Description

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Cyclooxygenase 1 (COX-1) is a bifunctional enzyme that exhibits both COX and peroxidase activities.<sup>1,2</sup> 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.<sup>3</sup> COX-1 is constitutively expressed in the gastrointestinal tract, kidney, spleen, liver, and lung and localizes to the endoplasmic reticulum.<sup>4,5</sup> The COX component converts arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) to a hydroperoxyl endoperoxide prostaglandin G<sub>2</sub> (PGG<sub>2</sub>; Item No. 17010) and the peroxidase component reduces the endoperoxide to the corresponding alcohol PGH<sub>2</sub> (Item No. 17020), the precursor of PGs, thromboxanes, and prostacyclins.<sup>1,2</sup> 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.<sup>6,7</sup> Cayman's COX-1 Monoclonal Antibody (Clone CX111) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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4. Seibert, K., Zhang, Y., Leahy, K., *et al.* Pharmacological and biochemical demonstration of the role of cyclooxygenase 2 in inflammation and pain. *Proc. Natl. Acad. Sci. USA* **91(25)**, 12013-12017 (1994).
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