PRODUCT INFORMATION

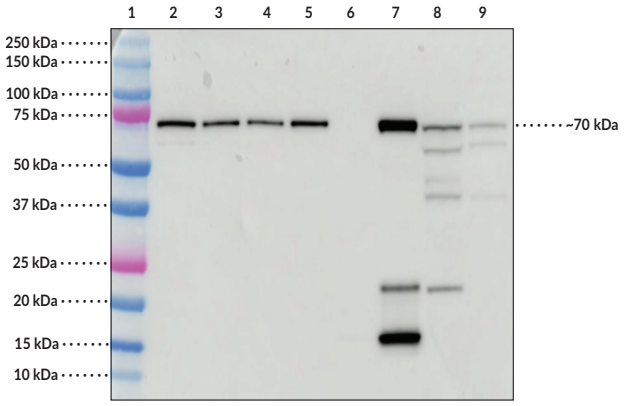
COX-1 (mouse) Polyclonal Antibody

Item No. 160109

Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	Cyclooxygenase 1, PGHS-1, Prostaglandin Endoperoxide Synthase 1, Prostaglandin G/H Synthase 1, Prostaglandin H2 Synthase 1
Immunogen:	Peptide from the internal region of mouse COX-1
Cross Reactivity:	(-) COX-2
Species Reactivity:	(+) Human, Mouse, and Ovine; other species not tested
Uniprot No.:	P22437
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glyercol and 0.02% sodium azide
Host:	Rabbit
Application:	Western blot; the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Bio-Rad Precision Plus Protein Dual Color Standard
Lane 2: Cox-1 (ovine) recombinant protein (Item No. 60100, Batch No. 0685168) (100 ng)
Lane 3: Cox-1 (ovine) recombinant protein (Item No. 60100, Batch No. 0808692) (100 ng)
Lane 4: Cox-1 (ovine) Electrophoresis Standard (Item No. 360100, Batch No. 0433239) (50 ng)
Lane 5: Cox-1 (ovine) Electrophoresis Standard (Item No. 360100, Batch No. 0433239) (100 ng)
Lane 6: Cox-2 (ovine) Electrophoresis Standard (Item No. 360120, Batch No. 0592053-1) (100 ng)
Lane 7: Cox-1 (human) recombinant protein (Item No. 17616, Batch No. 0713826-1) (100 ng)
Lane 8: Mouse lung homogenate (50 µg)
Lane 9: Mouse kidney hoogenate (50 µg)

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

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 (mouse) Polyclonal Antibody can be used for Western blot (WB).

References

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3. Smith, W.L., Garavito, R.M., and DeWitt, D.L. Prostaglandin endoperoxide H synthases (cyclooxygenases)-1 and -2. *J. Biol. Chem.* **271**, 33157-33160 (1996).
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6. Gierse, J.K., Hauser, S.D., Creely, D.P., *et al*. Expression and selective inhibition of the constitutive and inducible forms of human cyclo-oxygenase. *Biochem. J*. **305(Pt. 2)**, 379-484 (1995).
7. Frölich, J.C. A classification of NSAIDs according to the relative inhibition of cyclooxygenase isoenzymes. *Trends Pharmacol. Sci*. **18(1)**, 30-34 (1997).

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