SANTA CRUZ BIOTECHNOLOGY, INC.

Cox-1 (M-20): sc-1754

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Prostaglandins are a diverse group of autocrine and paracrine hormones that mediate many cellular and physiologic processes. Prostaglandin H2 (PGH2) is an intermediate molecule in formation of the prostaglandins. Cyclooxygenase-1 (Cox-1) and cyclooxygenase-2 (Cox-2) are prostaglandin synthases that catalyze the formation of PGH2 from arachidonic acid (AA). Cox-1 and Cox-2 are isozymes of prostaglandin-endoperoxidase synthase (PTGS). Cox-1 is constitutively expressed in most tissues and is thought to serve in general "housekeeping" functions. Cox-2 is efficiently induced in migratory cells responding to pro-inflammatory stimuli and is considered to be an important mediator of inflammation. Both enzymes are targets for the nonsteroidal therapeutic anti-inflammatory drugs, NSAIDs.

CHROMOSOMAL LOCATION

Genetic locus: Ptgs1 (mouse) mapping to 2 B.

SOURCE

Cox-1 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Cox-1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1754 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin conjugate for flow cytometry, sc-1754 PE, 100 tests; as agarose conjugate for immunoprecipitation, sc-1754 AC, 500 µg/0.25 ml agarose in 1 ml; as HRP conjugate for Western blotting, sc-1754 HRP, 200 µg/1 ml; as fluorescein (sc-1754 FITC) or rhodamine (sc-1754 TRITC) conjugates for immunofluorescence, sc-1754 TRITC, 200 µg/1 ml; and as Alexa Fluor® 405 (sc-1754 AF405), Alexa Fluor® 488 (sc-1754 AF488) or Alexa Fluor® 647 (sc-1754 AF647) conjugates for flow cytometry or immunofluorescence; 100 µg/2 ml.

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APPLICATIONS

Cox-1 (M-20) is recommended for detection of Cyclooxygenase-1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cox-1 siRNA (m): sc-35097, Cox-1 shRNA Plasmid (m): sc-35097-SH and Cox-1 shRNA (m) Lentiviral Particles: sc-35097-V.

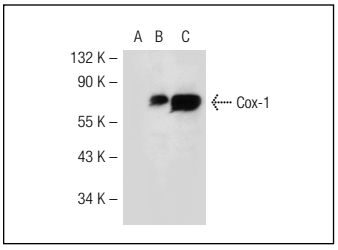
Molecular Weight of Cox-1: 72 kDa.

Positive Controls: Cox-1 (m): 293T Lysate: sc-126660.

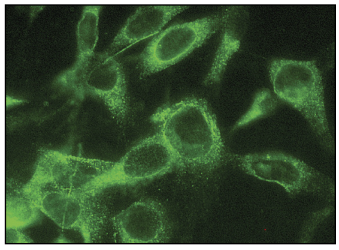
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Cox-1 (M-20): sc-1754. Western blot analysis of Cox-1 expression in non-transfected 293T: sc-117752 (**A**), mouse Cox-1 transfected 293T: sc-126660 (**B**) and NIH/3T3 (**C**) whole cell lysates.



Cox-1 (M-20): sc-1754. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Ermert, L., et al. 1998. Cyclooxygenase isoenzyme localization and mRNA expression in rat lungs. Respir. Cell Mol. Biol. 18: 479-488.
2. Muller-Decker, K., et al. 1998. Localization of prostaglandin-H Synthase-1 and -2 in mouse skin: implications for cutaneous function. Exp. Cell Res. 242: 84-91.
3. Muller-Decker, K., et al. 1998. Localization of prostaglandin H Synthase isoenzymes in murine epidermal tumors: suppression of skin tumor promotion by inhibition of prostaglandin H Synthase-2. Mol. Carcinogenesis 23: 36-44.
4. Gerbe, F., et al. 2011. Distinct ATOH1 and Neurog3 requirements define tuft cells as a new secretory cell type in the intestinal epithelium. J. Cell Biol. 192: 767-780.
5. Agouni, A., et al. 2011. Microparticles from patients with metabolic syndrome induce vascular hypo-reactivity via Fas/Fas-ligand pathway in mice. PLoS ONE 6: e27809.
6. de Almeida, A.B., et al. 2013. Anti-inflammatory intestinal activity of *Arctium lappa L. (Asteraceae)* in TNBS colitis model. J. Ethnopharmacol. 146: 300-310.
7. Suciu, M., et al. 2015. Acetaminophen-induced liver injury: Implications for temporal homeostasis of lipid metabolism and eicosanoid signaling pathway. Chem. Biol. Interact. 242: 335-344.

RESEARCH USE

For research use only, not for use in diagnostic procedures.