

Cox-1 (H-62): sc-7950

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 (human) mapping to 9q33.2; Ptgs1 (mouse) mapping to 2 B.

SOURCE

Cox-1 (H-62) is a rabbit polyclonal antibody raised against amino acids 63-124 of Cox-1 of human origin.

PRODUCT

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

Available as PE conjugate for flow cytometry, sc-7950 PE, 100 tests.

APPLICATIONS

Cox-1 (H-62) is recommended for detection of Cyclooxygenase-1 of mouse, rat and human 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cox-1 (H-62) is also recommended for detection of Cyclooxygenase-1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Cox-1 siRNA (h): sc-29277, Cox-1 siRNA (m): sc-35097, Cox-1 shRNA Plasmid (h): sc-29277-SH, Cox-1 shRNA Plasmid (m): sc-35097-SH, Cox-1 shRNA (h) Lentiviral Particles: sc-29277-V and Cox-1 shRNA (m) Lentiviral Particles: sc-35097-V.

Molecular Weight of Cox-1: 72 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, NIH/3T3 whole cell lysate: sc-2210 or U-937 cell lysate: sc-2239.

RESEARCH USE

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

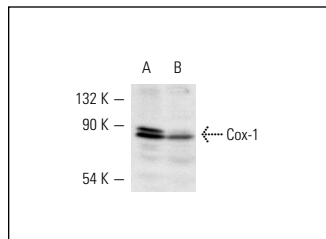
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

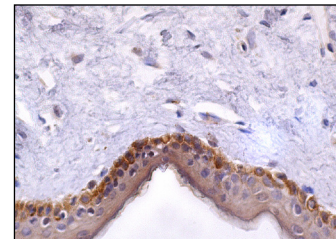
STORAGE

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

DATA



Cox-1 (H-62): sc-7950. Western blot analysis of Cox-1 expression in KNRK (A) and NIH/3T3 (B) whole cell lysates.



Cox-1 (H-62): sc-7950. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

SELECT PRODUCT CITATIONS

- Subbarayan, V., et al. 2001. Differential expression of cyclooxygenase-2 and its regulation by tumor necrosis factor- α in normal and malignant prostate cells. *Cancer Res.* 61: 2720-2726.
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- László, C.F., et al. 2009. The role of translational regulation in ultraviolet C light-induced cyclooxygenase-2 expression. *Life Sci.* 85: 70-76.
- Alvarez, Y., et al. 2009. Cyclooxygenase-2 induced by zymosan in human monocyte-derived dendritic cells shows high stability, and its expression is enhanced by atorvastatin. *J. Pharmacol. Exp. Ther.* 329: 987-994.
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- de Beer, V.J., et al. 2011. Prostanoids suppress the coronary vasoconstrictor influence of endothelin after myocardial infarction. *Am. J. Physiol. Heart Circ. Physiol.* 301: H1080-H1089.
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- Alexandru, N., et al. 2011. Platelet activation in hypertension associated with hypercholesterolemia: effects of irbesartan. *J. Thromb. Haemost.* 9: 173-184.

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