SANTA CRUZ BIOTECHNOLOGY, INC.

Cox-2 (N-20): sc-1746

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 in formation of the prostaglandins. Two prostaglandin synthases that catalyze the formation of PGH2 from arachidonic acid (AA) are cyclooxygenase-1 and cyclooxygenase-2. Cyclooxygenase-2, or Cox-2, is efficiently induced in migratory cells responding to pro-inflammatory stimuli and is considered to be an important mediator of inflammation. An alternative form of the protein, designated Cox-1, is constitutively expressed in most tissues and is thought to serve in general "housekeeping" functions. Both enzymes are targets for the nonsteroidal therapeutic anti-inflammatory drugs, NSAIDs.

CHROMOSOMAL LOCATION

Genetic locus: PTGS2 (human) mapping to 1q31.1; Ptgs2 (mouse) mapping to 1 G1.

SOURCE

Cox-2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cox-2 of rat 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-1746 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1746 AC, 500 µg/ 0.25 ml agarose in 1 ml.

APPLICATIONS

Cox-2 (N-20) is recommended for detection of Cox-2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cox-2 (N-20) is also recommended for detection of Cox-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Cox-2 siRNA (h): sc-29279, Cox-2 siRNA (m): sc-29278, Cox-2 shRNA Plasmid (h): sc-29279-SH, Cox-2 shRNA Plasmid (m): sc-29278-SH, Cox-2 shRNA (h) Lentiviral Particles: sc-29279-V, Cox-2 shRNA (m) and Lentiviral Particles: sc-29278-V.

Molecular Weight of Cox-2: 70-72 kDa.

Positive Controls: RAW 264.7 + LPS/PMA cell lysate: sc-2212, Cox-2 (h): 293 Lysate: sc-113099 or CCD-1064Sk cell lysate: sc-2263.

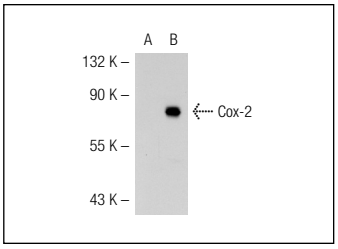
STORAGE

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

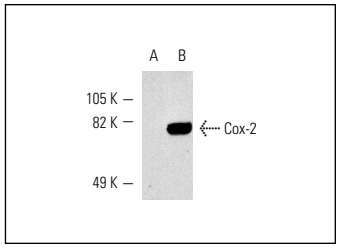
RESEARCH USE

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

DATA



Cox-2 (N-20): sc-1746. Western blot analysis of Cox-2 expression in non-transfected: sc-110760 (**A**) and human Cox-2 transfected: sc-113099 (**B**) 293 whole cell lysates.



Cox-2 (N-20): sc-1746. Western blot analysis of Cox-2 expression in uninduced (**A**) and LPS + PMA-treated (**B**) RAW 264.7 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pogorzelska, E., et al. 1990. Modification of the test for determining bacterial capacity for nitrate reduction. Rocz. Panstw. Zakl. Hig. 41: 58-62.
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3. Torres, R., et al. 2008. An intranasal selective antisense oligonucleotide impairs lung cyclooxygenase-2 production and improves inflammation, but worsens airway function, in house dust mite sensitive mice. Respir. Res. 9: 72.
4. Fernandez-Lizarbe, S., et al. 2008. Lipid rafts regulate ethanol-induced activation of TLR4 signaling in murine macrophages. Mol. Immunol. 45: 2007-2016.
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6. Um, H.S., et al. 2011. Treadmill exercise represses neuronal cell death in an aged transgenic mouse model of Alzheimer's disease. Neurosci. Res. 69: 161-173.
7. Zhu, C.J., et al. 2012. The mineralocorticoid receptor-p38MAPK-NFκB or ERK-Sp1 signal pathways mediate aldosterone-stimulated inflammatory and profibrotic responses in rat vascular smooth muscle cells. Acta Pharmacol. Sin. 33: 873-878.
8. Gao, J., et al. 2012. Ontogeny of angiotensin type 2 and type 1 receptor expression in mice. J. Renin Angiotensin Aldosterone Syst. 13: 341-352.