SANTA CRUZ BIOTECHNOLOGY, INC.

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

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 H_2 (PGH_2) 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 PGH_2 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).

REFERENCES

1. O'Neill, P.O. and Ford-Hutchinson, A.W. 1993. Expression of mRNA for cyclooxygenase-1 and cyclooxygenase-2 in human tissues. FEBS Lett. 330: 156-160.
2. O'Neill, G.P., et al. 1994. Overexpression of human prostaglandin G/H synthase 1 and 2 by recombinant vaccinia virus: inhibition by nonsteroidal anti-inflammatory drugs and biosynthesis of 15-hydroeicosatetraenoic acid. Mol. Pharmacol. 45: 245-254.
3. Morham, S.G., et al. 1995. Prostaglandin synthase 2 gene disruption causes severe renal pathology in the mouse. Cell 83: 473-482.
4. Langenbach, R., et al. 1995. Prostaglandin synthase 1 gene disruption in mice reduces arachidonic acid-induced inflammation and indomethacin-induced gastric ulceration. Cell 83: 483-492.
5. Tsujii, M. and DuBois, R.N. 1995. Alterations in cellular adhesion and apoptosis in epithelial cells overexpressing prostaglandin endoperoxide synthase 2. Cell 83: 493-501.
6. Adams, J., et al. 1996. Cyclooxygenase-2 induction in cerebral cortex: an intracellular response to synaptic excitation. J. Neurochem. 66: 6-13.
7. Berenbaum, F., et al. 1996. Synergistic effect of interleukin-1β and tumor necrosis factor α on PGE_2 production by articular chondrocytes does not involve PLA_2 stimulation. Exp. Cell Res. 222: 379-384.

CHROMOSOMAL LOCATION

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

PRODUCT

Cox-1 (m): 293T Lysate represents a lysate of mouse Cox-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Cox-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Cox-1 antibodies.Recommended use: 10-20 µl per lane.

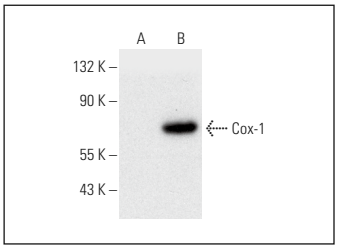
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Cox-1 (H-1): sc-166573 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Cox-1 expression in Cox-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Cox-1 (H-1): sc-166573. Western blot analysis of Cox-1 expression in non-transfected: sc-117752 (**A**) and mouse Cox-1 transfected: sc-126660 (**B**) 293T whole cell lysates.

RESEARCH USE

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