SANTA CRUZ BIOTECHNOLOGY, INC.

# Cox-1 (h): 293T Lysate: sc-114480

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 proinflammatory 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, G.P. 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., Mancini, J.A., Kargman, S., Yergey, J., Kwan, M.Y., Falgueyret, J.P., Abromozitz, M., Kennedy, B.P., Ouellet, M., Cromlish, W., Culp, S., Evans, J.F., Ford-Hutchinson, A.W. and Vickers, P.J. 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., Langenbach, R., Loftin, C.D., Tiano, H.F., Vouloumanos, N., Jennett, J.C., Mahler, J.F., Kluckman, K.D., Ledford, A., Lee, C.A. and Smithies, O. 1995. Prostaglandin synthase-2 gene disruption causes severe renal pathology in the mouse. Cell 83: 473-482.
4. Langenbach, R., Morham, S.G., Tiano, H.F., Loftin, C.D., Ghanayem, B.I., Chulada, P.C., Mahler, J.F., Lee, C.A., Goulding, E.H., Kluckman, K.D., Kim, H.S. and Smithies, O. 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., Collaco-Moraes, Y. and de Belleroche, J. 1996. Cyclooxygenase-2 induction in cerebral cortex: an intracellular response to synaptic excitation. J. Neurochem. 66: 6-13.
7. Berenbaum, F., Jacques, C., Thomas, G., Corvol, M.T., Bereziat, G. and Masliah, J. 1996. Synergistic effect of interleukin-1$\beta$ and tumor necrosis factor-$\alpha$ on PGE2 production by articular chondrocytes does not involve PLA2 stimulation. Exp. Cell Res. 222: 379-384.


## 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.

## CHROMOSOMAL LOCATION

Genetic locus: PTGS1 (human) mapping to 9q33.2.

## PRODUCT

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

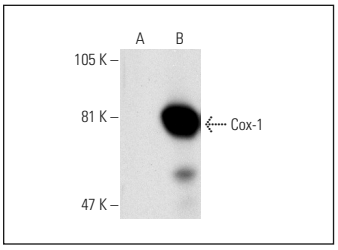
## APPLICATIONS

Cox-1 (h): 293T Lysate is suitable as a Western Blotting positive control for human 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-tranfected 293T cells.

Cox-1 (AS70): sc-52757 is recommended as a positive control antibody for Western Blot analysis of enhanced human Cox-1 expression in Cox-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## DATA




Cox-1 (AS70): sc-52757. Western blot analysis of Cox-1 expression in non-transfected: sc-117752 (**A**) and human Cox-1 transfected: sc-114480 (**B**) 293T whole cell lysates.

## RESEARCH USE

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