

# Cox-2 (M-19): sc-1747

## BACKGROUND

Prostaglandins are a diverse group of autocrine and paracrine hormones that mediate many cellular and physiologic processes. Prostaglandin H<sub>2</sub> (PGH<sub>2</sub>) 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<sub>2</sub> 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: PTGS2 (human) mapping to 1q31.1; Ptgs2 (mouse) mapping to 1 G1.

## SOURCE

Cox-2 (M-19) is available as either goat (sc-1747) or rabbit (sc-1747-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of Cox-2 of mouse origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1747 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as PE conjugate for flow cytometry, sc-1747 PE, 100 tests.

## APPLICATIONS

Cox-2 (M-19) 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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 and Cox-2 shRNA (m) Lentiviral Particles: sc-29278-V.

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

Positive Controls: CCD-1064Sk cell lysate: sc-2263, A549 cell lysate: sc-2413 or RAW 264.7 + LPS/PMA cell lysate: sc-2212.

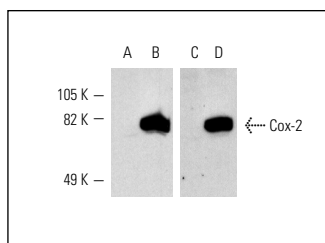
## STORAGE

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

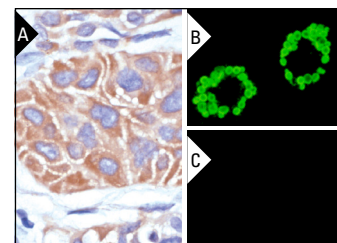
## RESEARCH USE

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

## DATA



Western blot analysis of Cox-2 expression in uninduced (A, C) and LPS + PMA-treated (B, D) RAW 264.7 whole cell lysates. Antibodies tested include Cox-2 (C-20): sc-1745 (A, B) and Cox-2 (M-19): sc-1747 (C, D).



Cox-2 (M-19): sc-1747. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing membrane and cytoplasmic staining (A). Immunofluorescence staining of methanol-fixed RAW 264.7 cells induced with LPS and PMA showing cytoplasmic vesicle localization (B) and untreated control RAW 264.7 cells (C).

## SELECT PRODUCT CITATIONS

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Try **Cox-2 (H-3): sc-376861** or **Cox-2 (D-12): sc-166475**, our highly recommended monoclonal alternatives to Cox-2 (M-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Cox-2 (H-3): sc-376861**.