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 1G1.

SOURCE

Cox-2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Cox-2 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.

Blocking peptide available for competition studies, sc-1745 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-1745 PE, 100 tests; as agarose conjugate for immunoprecipitation, sc-1745 AC, 500 µg/0.25 ml agarose in 1 ml; and as either fluorescein (sc-1745 FITC) or rhodamine (sc-1745 TRITC) conjugates for immunofluorescence, 200 µg/1 ml.

APPLICATIONS

Cox-2 (C-20) is recommended for detection of cyclooxygenase-2 (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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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


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

RESEARCH USE

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

STORAGE

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

DATA

Cox-2 (C-20) sc-1745. Western blot analysis of Cox-2 expression in non-transfected: sc-110780 (A) and human Cox-2 transfected: sc-113099 (B) 293 whole cell lysates.

Cox-2 (C-20) PE sc-1745 PE. Intracellular FCM analysis of fixed and permeabilized HIV-EC-C cells. Black line histogram represents the isotype control, normal goat light sc-3932.

SELECT PRODUCT CITATIONS


Try Cox-2 (H-3): sc-376861 or Cox-2 (D-12): sc-166475, our highly recommended monoclonal alternatives to Cox-2 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see Cox-2 (H-3): sc-376861.