Cox-2 (D-12): sc-166475

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 the 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 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


CHROMOSOMAL LOCATION

Genetic locus: PTGS2 (human) mapping to 1q31.1; Ptgs2 (mouse) mapping to 1q31.2.

SOURCE

Cox-2 (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 580-604 at the C-terminus of Cox-2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cox-2 (D-12) is available conjugated to agarose (sc-166475 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166475 HRP), 200 µg/ml, for WB, (HC) and ELISA; to either phycoerythrin (sc-166475 PE), fluorescein (sc-166475 FITC), Alexa Fluor® 488 (sc-166475 AF488), Alexa Fluor® 546 (sc-166475 AF546), Alexa Fluor® 594 (sc-166475 AF594) or Alexa Fluor® 647 (sc-166475 AF647), 200 µg/ml, for WB (RGB), IF, (HC) and FCM; and to either Alexa Fluor® 680 (sc-166475 AF680) or Alexa Fluor® 790 (sc-166475 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166475 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Cox-2 (D-12) is recommended for detection of Cox-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µl 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).


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

Positive Controls: Cox-2 (h): 293 Lysate; sc-113099.

DATA

Cox-2 (D-12): sc-166475. 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.

SELECT PRODUCT CITATIONS


RESEARCH USE

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