**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 syntheses 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.

**CHROMOSOMAL LOCATION**

Genetic locus: PTGS1 (human) mapping to 9q33.2; Ptgs1 (mouse) mapping to 2 B.

**SOURCE**

Cox-1 (11) is a mouse monoclonal antibody raised against Cox-1 purified from seminal vesicles of ovine origin.

**PRODUCT**

Each vial contains 200 µg IgG2b, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cox-1 (11) is available conjugated to agarose (sc-19998 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19998 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycoerythrin (sc-19998 PE), fluorescein (sc-19998 FITC), Alexa Fluor® 488 (sc-19998 AF488), Alexa Fluor® 546 (sc-19998 AF546), Alexa Fluor® 594 (sc-19998 AF594) or Alexa Fluor® 647 (sc-19998 AF647), 200 µg/ml, for WB (RGB), IF, IHC, and FC; and to either Alexa Fluor® 680 (sc-19998 AF680) or Alexa Fluor® 790 (sc-19998 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

**APPLICATIONS**

Cox-1 (11) is recommended for detection of Cyclooxygenase-1 of mouse, rat, human and ovine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (starting dilution 1:50, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells); may cross-reactive with human recombinant, human platelet, rat and mouse Cox-1 and slightly (5%) with ovine Cox-2; no cross-reaction with human or mouse Cox-2.

Suitable for use as control antibody for Cox-1 siRNA (h): sc-29277, Cox-1 siRNA (m): sc-35097, Cox-1 shRNA Plasmid (h): sc-29277 SH, Cox-1 shRNA Plasmid (m): sc-35097 SH, Cox-1 shRNA (h) Lentiviral Particles: sc-29277-V and Cox-1 shRNA (m) Lentiviral Particles: sc-35097-V.

Molecular Weight of Cox-1: 72 kDa.

Positive Controls: Cox-1 (h): 293T Lysate: sc-144480, NIH/3T3 whole cell lysate: sc-2210 or U-937 cell lysate: sc-2239.

**STORAGE**

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

**DATA**

Cox-1 (11): sc-19998. Western blot analysis of Cox-1 expression in non-transfected 293T: sc-117752 (A) human Cox-1 transfected 293T: sc-114480 (B) and U-937 (C) whole cell lysates.

Cox-1 (11): sc-19998. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube showing cytoplasmic staining of glandular cells.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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