Anti-COX2 Antibody

RT1159

Product Type:	Mouse monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP, IF, IHC-P, ELISA
Molecular Wt:	70-72kDa

Description: Prostaglandins are a diverse group of autocrine and paracrine hormones thatmediate many cellular and physiologic processes. Prostaglandin H2 (PGH2) isan intermediate molecule in formation of the prostaglandins. Cyclooxygenase-1(Cox-1) and cyclooxygenase-2 (Cox-2) are prostaglandin synthases that catalyzethe formation of PGH2 from arachidonic acid (AA). Cox-1 and Cox-2 areisozymes of prostaglandin-endoperoxidase synthase (PTGS). Cox-1 is constitutivelyexpressed in most tissues and is thought to serve in general “housekeeping”functions. Cox-2 is efficiently induced in migratory cells respondingto pro-inflammatory stimuli and is considered to be an important mediator ofinflammation. Both enzymes are targets for the nonsteroidal therapeutic antiinflammatorydrugs, NSAIDs.

Immunogen: peptide

Positive control: RAW 264.7, NIH/3T3, human gall bladder tissue.

Subcellular location: Microsome membrane, Endoplasmic reticulum membrane

Database links: SwissProt: P35354 Human

Recommended Dilutions:

WB	1:100-1:1000
IP	1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)
IF	1:50-1:500
IHC-P	1:50-1:500
ELISA	1:30-1:3000

Storage Buffer: 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Storage Instruction: Store at +4℃

Purity: Immunogen affinity purified.

Images

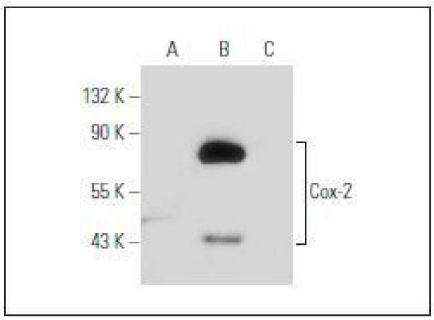

Fig1: Western blot analysis of Cox-2 expression in untreated (A), LPS treated (B) and LPS and Hydrocortisone treated (C) RAW 264.7 whole cell lysates. Note decreased LPS induction of Cox-2 expression in lane C.expression in lane C.

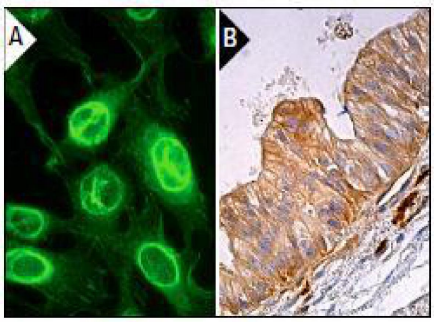

Fig2: Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane and nuclear envelope localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells (B).

Background References

1. Chen, Y.F., et al. 2013. High expression levels of COX-2 and P300 are associated with unfavorable survival in laryngeal squamous cell carcinoma. Eur. Arch. Otorhinolaryngol. 270: 1009-1017.
2. Ahmad, S., et al. 2012. Neuroprotective effect of sesame seed oil in 6-hydroxydopamine induced neurotoxicity in mice model: cellular, biochemical and neurochemical evidence. Neurochem. Res. 37: 516-526.