

Datasheet for ABIN967822

anti-PTGS2 antibody (AA 368-604)

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Overview

Quantity:	50 µg
Target:	PTGS2
Binding Specificity:	AA 368-604
Reactivity:	Human, Mouse, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PTGS2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Rat Cox-2 aa. 368-604
Clone:	33-Cox
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Human, Chicken
Characteristics:	<ol style="list-style-type: none"> 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Please refer to us for technical protocols.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	PTGS2
Alternative Name:	Cox-2 (PTGS2 Products)
Background:	<p>Cyclooxygenase (Cox) is also known as prostaglandin H synthase or PGH synthase (E.C. 1.14.99.1). It catalyzes the conversion of arachidonate to prostaglandin H2 (PGH2), the precursor of PGE2, PGF2alpha, PGD2, prostacyclin, and thromboxane A2. Cox actually has two different enzymatic activities: a cyclooxygenase that mediates the formation of PGG2 from oxygen and arachidonate and a hydroperoxidase that catalyzes a reduction of PGG2 yielding PGH2. Two Cox genes, Cox-1 and Cox-2, have been isolated in several species. A 4kb mRNA encodes the 604 amino acid Cox-2 protein. The two human Cox isoenzymes are 61% identical in amino acid composition with the active sites being highly conserved. Cox-2 mRNA and protein levels are induced by serum, lipopolysaccharides, growth factors, human chorionic gonadotropin and phorbol testers in various mammalian cell types. It has been shown that interleukin-1alpha (IL-1alpha) induces increased levels of Cox-2 mRNA and protein in human endothelial cells. The sustained increase in Cox-2 is apparently due (at least in part) to IL-1alpha increasing the stability of Cox-2 mRNA. This type of regulatory mechanism may play an important role in chronic inflammatory conditions.</p> <p>Synonyms: PGHS-2, Cyclooxygenase-2</p>
Molecular Weight:	70 kDa
Pathways:	Brown Fat Cell Differentiation , Positive Regulation of fat Cell Differentiation

Application Details

Comment:	Related Products: ABIN968550, ABIN967389
Restrictions:	For Research Use only

Handling

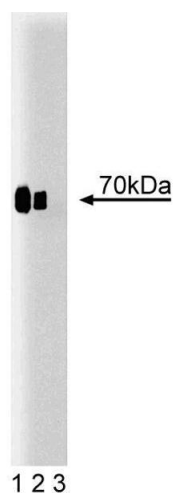
Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

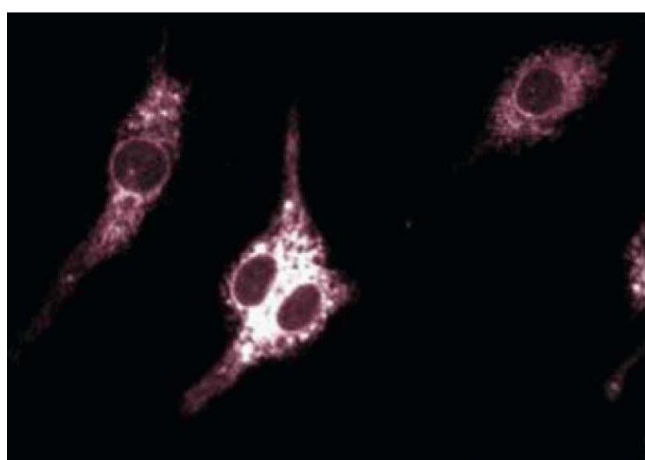
Publications

Product cited in:	<p>Shiotani, Denda, Yamamoto, Kitayama, Endoh, Sasaki, Tsutsumi, Sugimura, Konishi: "Increased expression of cyclooxygenase-2 protein in 4-nitroquinoline-1-oxide-induced rat tongue carcinomas and chemopreventive efficacy of a specific inhibitor, nimesulide." in: Cancer research, Vol. 61, Issue 4, pp. 1451-6, (2001) (PubMed).</p> <p>Marrogi, Pass, Khan, Metheny-Barlow, Harris, Gerwin: "Human mesothelioma samples overexpress both cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (NOS2): in vitro antiproliferative effects of a COX-2 inhibitor." in: Cancer research, Vol. 60, Issue 14, pp. 3696-700, (2000) (PubMed).</p> <p>Giroux, Descoteaux: "Cyclooxygenase-2 expression in macrophages: modulation by protein kinase C-alpha." in: Journal of immunology (Baltimore, Md. : 1950), Vol. 165, Issue 7, pp. 3985-91, (2000) (PubMed).</p> <p>Xie, Cho, Calaycay, Mumford, Swiderek, Lee, Ding, Troso, Nathan: "Cloning and characterization of inducible nitric oxide synthase from mouse macrophages." in: Science (New York, N.Y.), Vol. 256, Issue 5054, pp. 225-8, (1992) (PubMed).</p>
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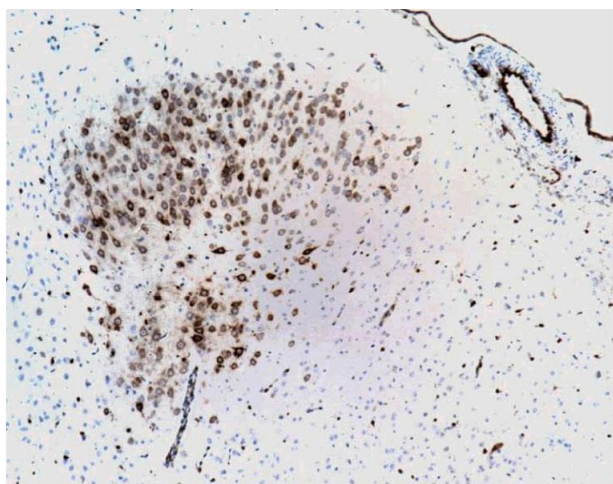
Western Blotting

Image 1. Western blot analysis of Cox-2 on a lysate from mouse macrophages treated with IFNgamma and LPS. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the Mouse Anti-Cox-2 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of mouse macrophages.



Immunohistochemistry

Image 3. Immunohistochemical staining of neurons and endothelial cells from blood vessels (formalin-fixed, citrate buffer pre-treatment, 10X).