

Datasheet for ABIN5518867

anti-PTGS2 antibody (Middle Region)



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1 Image

19 Publications

Overview

Quantity:	100 µg
Target:	PTGS2
Binding Specificity:	AA 365-397, Middle Region
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PTGS2 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human PTGS2, different from the related mouse and rat sequences by eight amino acids.
Sequence:	AEFNTLYHWH PLLPDTFQIH DQKYNYYQQFI YNN
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody Picoband® (ABIN5518867). Tested in WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: PTGS2

Alternative Name: PTGS2 ([PTGS2 Products](#))

Background: Synonyms: Prostaglandin G/H synthase 2,1.14.99.1,Cyclooxygenase-2,COX-2,PHS II,Prostaglandin H2 synthase 2,PGH synthase 2,PGHS-2,Prostaglandin-endoperoxide synthase 2,PTGS2,COX2,

Tissue Specificity: Expressed in all fetal tissues examined with highest levels in brain, kidney, heart and spleen. Weak expression in liver. In adult brain, highest expression found in the frontal lobe of the cortex and in the anterior perisylvian cortex-opercular gyri. Moderate expression in the cerebellar cortex, the posterior perisylvian cortex-opercular gyri and the temporal associated cortex. Weak expression found in the striate, extra-striate and motor cortices. Expressed in cerebrospinal fluid, and plasma. Isoform APP695 is the predominant form in neuronal tissue, isoform APP751 and isoform APP770 are widely expressed in non-neuronal cells. Isoform APP751 is the most abundant form in T-lymphocytes. Appican is expressed in astrocytes.

Background: Cyclooxygenase (Cox) is the key enzyme in conversion of arachidonic acid to PGs, and two isoforms, Cox-1 and Cox-2, have been identified. Cox-2 gene encodes an inducible prostaglandin synthase enzyme that is overexpressed in adenocarcinomas and other tumors. Deletion of the murine Cox-2 gene in Min mice reduced the incidence of intestinal tumors, suggesting that it is required for tumorigenesis. This gene is localized to sites associated with retinal blood vessels, and plays an important role in blood vessel formation in the retina. And the glucocorticoid receptor suppression of COX-2 is also crucial for curtailing lethal immune activation, and suggests new therapeutic approaches for regulation of T-cell-mediated inflammatory diseases.

Molecular Weight: 75 kDa

Gene ID: 5743

UniProt: [P35354](#)

Pathways: [Brown Fat Cell Differentiation](#), [Positive Regulation of fat Cell Differentiation](#)

Application Details

Application Notes: Western blot, 0.1-0.5 µg/mL, Human

Application Details

1. Brewer, J. A., Khor, B., Vogt, S. K., Muglia, L. M., Fujiwara, H., Haegele, K. E., Sleckman, B. P., Muglia, L. J. : T-cell glucocorticoid receptor is required to suppress COX-2-mediated lethal immune activation. *Nature Med.* 9: 1318-1322, 2003. 2. Liu, C. H., Chang, S.-H., Narko, K., Trifan, O. C., Wu, M.-T., Smith, E., Haudenschild, C., Lane, T. F., Hla, T. : Overexpression of cyclooxygenase-2 is sufficient to induce tumorigenesis in transgenic mice. *J. Biol. Chem.* 276: 18563-18569, 2001. 3. Salmenkivi, K., Haglund, C., Ristimäki, A., Arola, J., Heikkilä, P. : Increased expression of cyclooxygenase-2 in malignant pheochromocytomas. *J. Clin. Endocr. Metab.* 86: 5615-5619, 2001. 4. Wilkinson-Berka, J. L., Alousis, N. S., Kelly, D. J., Gilbert, R. E. : COX-2 inhibition and retinal angiogenesis in a mouse model of retinopathy of prematurity. *Invest. Ophthalmol. Vis. Sci.* 44: 974-979, 2003.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

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: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in: Li, Zhou, Wei, Chen, Geng, Zheng, Chai, Li, Jiang: "miR-144 and targets, c-fos and cyclooxygenase-2 (COX2), modulate synthesis of PGE2 in the amnion during pregnancy and labor." in: **Scientific reports**, Vol. 6, pp. 27914, (2018) ([PubMed](#)).

Wang, Yuan, Wang, Yang, Chen, Liu, Song, Feng, Tan, Jia: "Anti-inflammatory Effects of

Phyllanthus emblica L on Benzopyrene-Induced Precancerous Lung Lesion by Regulating the IL-1 β /miR-101/Lin28B Signaling Pathway." in: **Integrative cancer therapies**, Vol. 16, Issue 4, pp. 505-515, (2018) ([PubMed](#)).

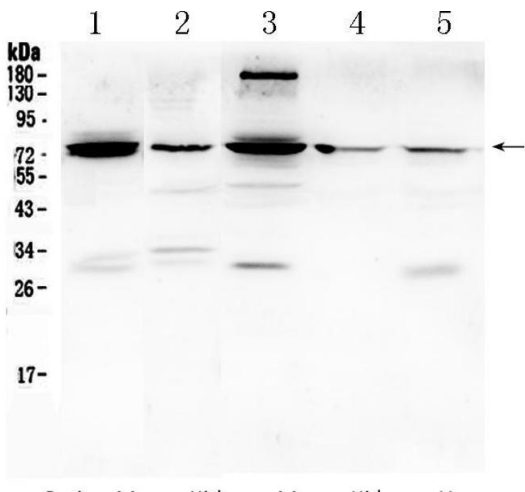
Wang, Duan, Wu, Min, Huang, Luo, He: "Effect of cyclooxygenase-2 inhibition on the development of post-traumatic stress disorder in rats." in: **Molecular medicine reports**, Vol. 17, Issue 4, pp. 4925-4932, (2018) ([PubMed](#)).

Sun, Xue, Xue, Ren, Wu, Wang: "Acetylpuerarin protects against OGD-induced cell injury in BV2 microglia by inhibiting HMGB1 release." in: **Die Pharmazie**, Vol. 73, Issue 2, pp. 92-97, (2018) ([PubMed](#)).

Liu, Jia, Chong, Jiang, Yang, Li, Ma, Sun, Zhou: "Effects of oral cimetidine on the reproductive system of male rats." in: **Experimental and therapeutic medicine**, Vol. 15, Issue 6, pp. 4643-4650, (2018) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



Western Blotting

Image 1. Western blot analysis of PTGS2 using anti- PTGS2 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat kidney tissue lysates, Lane 2: mouse kidney tissue lysates, Lane 3: HELA whole Cell lysates, Lane 4: 22RV1 whole Cell lysates, Lane 5: HEPG2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- PTGS2 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 μ g/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5

minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PTGS2 at approximately 75KD. The expected band size for PTGS2 is at 69KD.