ARG56491
anti-COX2 antibody

Package: 250 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes COX2
Tested Reactivity	Hu, Ms, Rat, Gpig, Mk, Rb, Sheep
Tested Application	ICC/IF, IHC-P, WB
Specificity	This antibody does not react to COX-1.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	COX2
Species	Mouse
Immunogen	Synthetic peptide around aa. 570-598 of Mouse / Rat COX-2.
Conjugation	Un-conjugated
Alternate Names	PHS II; Prostaglandin H2 synthase 2; PHS-2; Cyclooxygenase-2; PGHS-2; COX2; PGG/HS; COX-2; GRIPGHS; hCox-2; PGH synthase 2; Prostaglandin G/H synthase 2; Prostaglandin-endoperoxide synthase 2; EC 1.14.99.1

Application Instructions

Application table

Application	Dilution
ICC/IF	1:300
IHC-P	1:300
WB	1:200

Application Note

* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

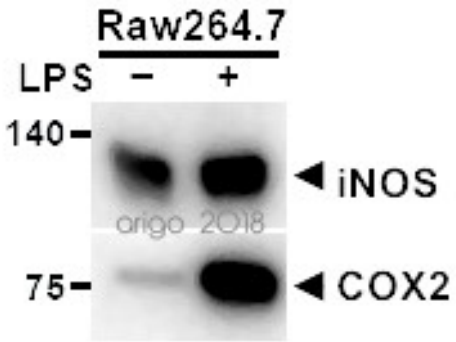
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, pH 7.2, 50% glycerol and 0.02% sodium azide
Preservative	0.02% sodium azide
Stabilizer	50% glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

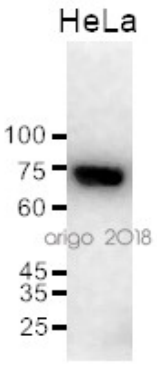
Gene Symbol	Ptgs2
Gene Full Name	prostaglandin-endoperoxide synthase 2
Background	COX2: Prostaglandin-endoperoxide synthase (PTGS), also known as cyclooxygenase, is the key enzyme in prostaglandin biosynthesis, and acts both as a dioxygenase and as a peroxidase. There are two isozymes of PTGS: a constitutive PTGS1 and an inducible PTGS2, which differ in their regulation of expression and tissue distribution. This gene encodes the inducible isozyme. It is regulated by specific stimulatory events, suggesting that it is responsible for the prostanoid biosynthesis involved in inflammation and mitogenesis. [provided by RefSeq, Feb 2009]
Function	COX2 converts arachidonate to prostaglandin H2 (PGH2), a committed step in prostanoid synthesis (PubMed:26859324, PubMed:27226593). Constitutively expressed in some tissues in physiological conditions, such as the endothelium, kidney and brain, and in pathological conditions, such as in cancer. PTGS2 is responsible for production of inflammatory prostaglandins. Up-regulation of PTGS2 is also associated with increased cell adhesion, phenotypic changes, resistance to apoptosis and tumor angiogenesis. In cancer cells, PTGS2 is a key step in the production of prostaglandin E2 (PGE2), which plays important roles in modulating motility, proliferation and resistance to apoptosis. During neuroinflammation, plays a role in neuronal secretion of specialized preresolving mediators (SPMs), especially 15-R-lipoxin A4, that regulates phagocytic microglia. [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30323 Inflammation Antibody Panel Related products: COX2 antibodies; COX2 Duos / Panels; Anti-Rabbit IgG secondary antibodies; Related news: Exploring Antiviral Immune Response
Research Area	Inflammation Study antibody
Calculated Mw	69 kDa
PTM	S-nitrosylation by NOS2 (iNOS) activates enzyme activity. S-nitrosylation may take place on different Cys residues in addition to Cys-526.

Images



ARG56491 anti-COX2 antibody WB image

Western blot: 20 µg of Raw264.7 cells untreated or treated with LPS. The blots were stained with ARG55060 anti-iNOS antibody at 1:500 dilution and ARG56491 anti-COX2 antibody at 1:200 dilution.



ARG56491 anti-COX2 antibody WB image

Western blot: 20 µg of HeLa cell lysate stained with ARG56491 anti-COX2 antibody at 1:200 dilution.