

## ARG56421 anti-COX2 antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes COX2
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Specificity	This antibody detects endogenous levels of Cox2 protein.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	COX2
Species	Human
Immunogen	Synthetic peptide around the C-terminus of Human Cox2.
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
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:1000
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.
Purity	> 95% (by SDS-PAGE).
Buffer	PBS (pH 7.2) and 0.05% Sodium azide.
Preservative	0.05% Sodium azide
Concentration	1 mg/ml
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 or below. 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.

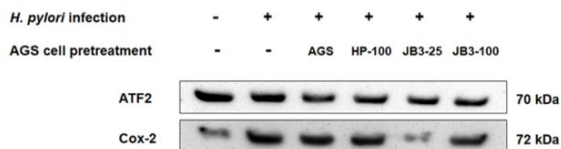
Note

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

## Bioinformation

Gene Symbol	PTGS2
Gene Full Name	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
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 products: <a href="#">COX2 antibodies</a> ; <a href="#">COX2 Duos / Panels</a> ; <a href="#">Anti-Rabbit IgG secondary antibodies</a> ; Related news: <a href="#">Exploring Antiviral Immune Response</a>
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.

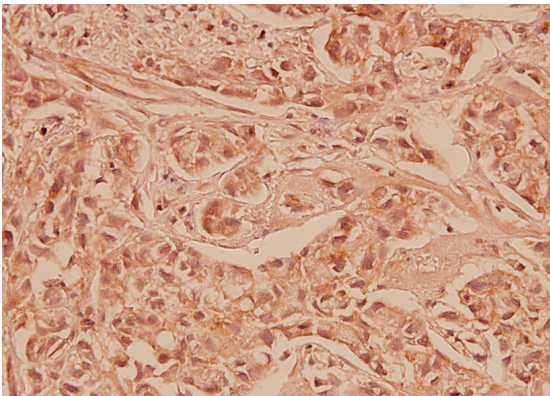
## Images



ARG56421 anti-COX2 antibody WB image

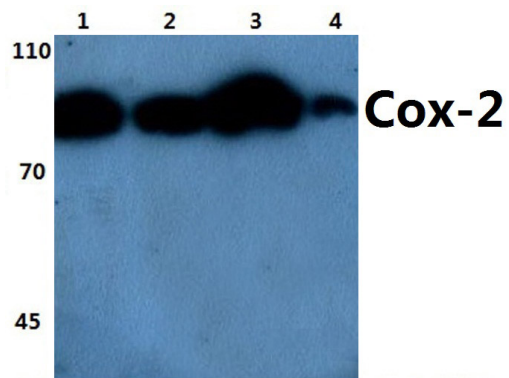
Western blot: AGS cells stained with ARG56421 anti-COX2 antibody, [ARG63122 anti-ATF2 antibody](#) and [ARG65352 Donkey anti-Goat IgG antibody \(HRP\)](#).

From Anh Duy Do et al. Front Immunol. (2022), [doi: 10.3389/fimmu.2021.796177](#), Fig. 5.D.



ARG56421 anti-COX2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG56421 anti-COX2 antibody at 1:100 dilution.



ARG56421 anti-COX2 antibody WB image

Western blot: 1) HeLa whole cell lysate, 2) Jurkat whole cell lysate, 3) Raw264.7 whole cell lysate, and 4) Rat lung lysate stained with ARG56421 anti-COX2 antibody at 1:500 dilution.