

## Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody

Catalog Number: PA1725

### About PTGS2

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 suggest new therapeutic approaches for regulation of T-cell-mediated inflammatory diseases.

### Overview

Product Name	Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody catalog # PA1725. Tested in IHC, WB applications. This antibody reacts with Human, Mouse.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .
Storage Instructions	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.
Host	Rabbit
Uniprot ID	P35354

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human COX2.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse</p>

## Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody (PA1725) Images

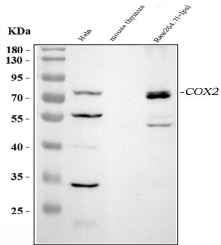


Figure 1. Western blot analysis of PTGS2 using anti-PTGS2 antibody (PA1725).

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 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

Lane 2: mouse thymus tissue lysates,

Lane 3: mouse RAW264.7 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 # PA1725) at 0.5 ug/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 1:5000 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 75 kDa. The expected band size for PTGS2 is at 69 kDa.

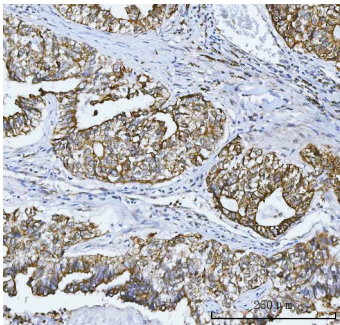


Figure 2. IHC analysis of SOX2 using anti-SOX2 antibody (PA1725).

SOX2 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SOX2 Antibody (PA1725) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

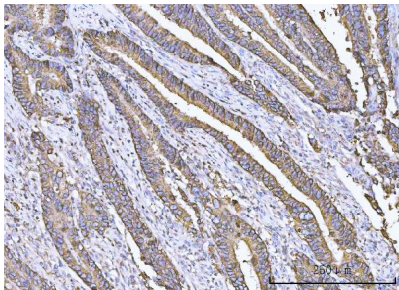
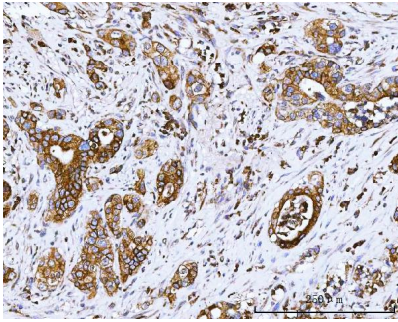


Figure 3. IHC analysis of SOX2 using anti-SOX2 antibody (PA1725).

SOX2 was detected in a paraffin-embedded section of human colonic adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SOX2 Antibody (PA1725) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Figure 4. IHC analysis of SOX2 using anti-SOX2 antibody



(PA1725). SOX2 was detected in a paraffin-embedded section of human differentiated adenocarcinoma in the appendix-1 tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SOX2 Antibody (PA1725) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

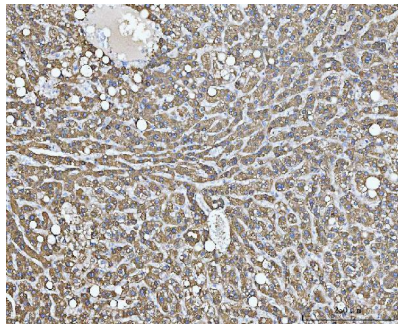


Figure 5. IHC analysis of SOX2 using anti-SOX2 antibody (PA1725). SOX2 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SOX2 Antibody (PA1725) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

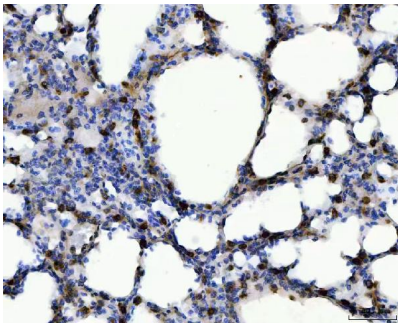


Figure 6. IHC analysis of SOX2 using anti-SOX2 antibody (PA1725). SOX2 was detected in a paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SOX2 Antibody (PA1725) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

## 31 Publications Citing This Product

1. PubMed ID: 21074783, Ni Yf, Kuai Jk, Lu Zf, Yang Gd, Fu Hy, Wang J, Tian F, Yan Xi, Zhao Yc, Wang Yj, Jiang T. J Surg Res. 2011 Jan;165(1):E29-35. Doi: 10.1016/J.Jss.2010.10.004. Epub 2010 Nov 10. Glycyrrhizin Treatment Is Associated With Attenuation Of Lipopolysaccha...
2. PubMed ID: 21532334, Xie Y, Chen S, Wang Ch, Tang Cw. Cancer Biol Ther. 2011 Jul 1;12(1):86-92. Doi: 10.4161/Cbt.12.1.15730. Epub 2011 Jul 1. Som230 Combined With Celecoxib Prolongs The Survival In Nude Mice With Hepg-2 Xenografts.
3. PubMed ID: 20813175, Duan J, Zhang Y, Han S, Chen Y, Li B, Liao M, Chen W, Deng X, Zhao J, Huang B. Int J Pharm. 2010 Nov 15;400(1-2):211-20. Doi: 10.1016/J.Ijpharm.2010.08.033. Epub 2010 Sep 8. Synthesis And In Vitro/In Vivo Anti-Cancer Evaluation Of Curcumin-Loaded ...

Visit [bosterbio.com/anti-cox2-cyclooxygenase-2-antibody-pa1725-boster.html](http://bosterbio.com/anti-cox2-cyclooxygenase-2-antibody-pa1725-boster.html) to see all 31 publications.

## Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-COX2/Cyclooxygenase 2/PTGS2 Antibody