abcam

Product datasheet

Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free ab227528

KO 評価済 リコンビナント RabMAb

1 Abreviews 3 References 画像数 14

製品の概要

製品名	Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPR12012] to COX2 / Cyclooxygenase 2 - BSA and Azide free
由来種	Rabbit
特異性	Stimulation is required to allow detection of the COX2 protein in some cell lines and tissues. It is better to use a positive control side by side when testing. Rat species is recommended based on IHC result, we do not guarantee WB, IP and ICC/IF for Rat.
アプリケーション	**適用あり:** WB, IHC-P, IP, ICC/IF **適用なし:** Flow Cyt
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: A549, HeLa and U-87 cell lysates and mouse spleen tissue lysate. Mouse B16-F10 and Raw 264.7 whole cell lysate. Mouse retina, hippocampus, heart and kidney tissue lysate. IHC-P: Human colonic carcinoma, lung carcinoma, liver and colon tissues and rat kidney tissue lysate; mouse kidney and liver tissue. IP: A549 cell lysate.
特記事項	ab227528 is the carrier-free version of **ab179800**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
バッファー	pH: 7.20 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR12012
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab227528の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

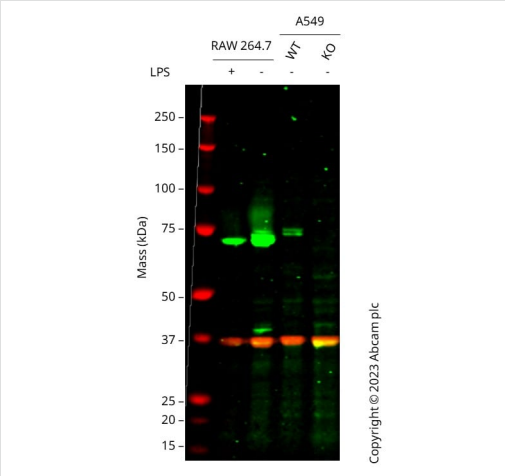
アプリケーション	Abreviews	特記事項
WB		Use at an assay dependent concentration. Predicted molecular weight: 69 kDa.
IHC-P	★★★☆☆ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

追加情報 Is unsuitable for Flow Cyt.

ターゲット情報

機能	Mediates the formation of prostaglandins from arachidonate. May have a role as a major mediator of inflammation and/or a role for prostanoid signaling in activity-dependent plasticity.
パスウェイ	Lipid metabolism; prostaglandin biosynthesis.
配列類似性	Belongs to the prostaglandin G/H synthase family. Contains 1 EGF-like domain.
翻訳後修飾	S-nitrosylation by NOS2 (iNOS) activates enzme activity. S-nitrosylation may take place on different Cys residues in addition to Cys-561.
細胞内局在	Microsome membrane. Endoplasmic reticulum membrane.

画像



Western blot - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

All lanes : Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] (**ab179800**) at 1/1000 dilution

Lane 1 : RAW 264.7 Control LPS (0 ng/mL, 4 h) cell lysate
Lane 2 : RAW 264.7 Treated LPS (100 ng/mL, 4 h) cell lysate
Lane 3 : Wild-type A549 **ab277305** cell lysate
Lane 4 : PTGS2 knockout A549 **ab283802** cell lysate

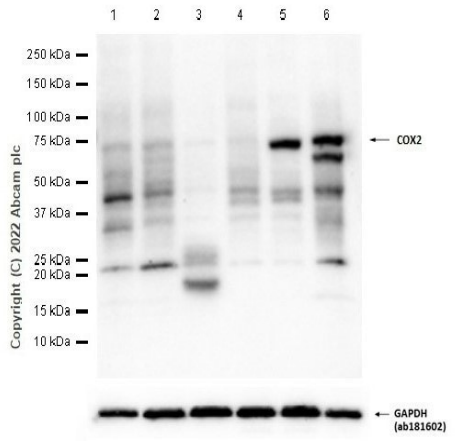
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 69 kDa
Observed band size: 69 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab179800**).

Western blot: Anti-PTGS2 antibody [EPR12012] (**ab179800**) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab179800** was shown to bind specifically to PTGS2. A band was observed at 69 kDa in wild-type RAW 264.7 cell lysates with no signal observed at this size in PTGS2 knockout cell line. To generate this image, wild-type and PTGS2 knockout RAW 264.7 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1% Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

All lanes : Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] (**ab179800**) at 1/1000 dilution

Lane 1 : B16-F10 (Mouse skin melanoma) whole cell lysate
Lane 2 : Raw 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate
Lane 3 : Mouse retina tissue lysate
Lane 4 : Mouse hippocampus tissue lysate
Lane 5 : Mouse heart tissue lysate
Lane 6 : Mouse kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 69 kDa
Observed band size: 72 kDa

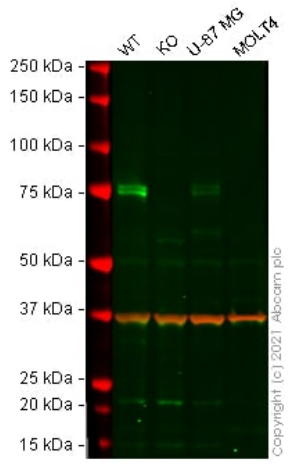
Exposure time: 60 seconds

Blocking buffer and concentration: 5% NFDM/TBST

Diluting buffer and concentration: 5% NFDM/TBST

COX2 is expressed at a low level in Raw264.7, mouse retina, hippocampus, heart, kidney etc. (PMID: 22015457, PMID: 26001832, PMID: 23045674, PMID: 33737575).

This data was developed using the same antibody clone in a different buffer formulation (**ab179800**).



Western blot - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

All lanes : Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] (**ab179800**) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : PTGS2 knockout A549 cell lysate
Lane 3 : U-87 MG cell lysate
Lane 4 : MOLT-4 cell lysate

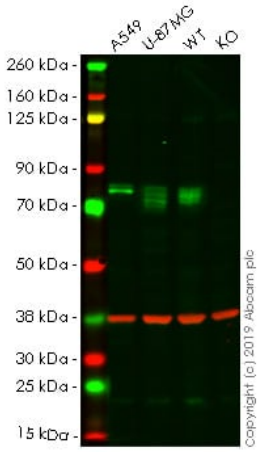
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 69 kDa

False colour image of Western blot: Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab179800** was shown to bind specifically to COX2 / Cyclooxygenase 2. A band was observed at 75 kDa in wild-type A549 cell lysates with no signal observed at this size in PTGS2 knockout cell line **ab280802** (knockout cell lysate **ab283825**). To generate this image, wild-type and PTGS2 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.

This data was developed using the same antibody clone in a different buffer formulation (**ab179800**).



Western blot - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

All lanes : Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] (**ab179800**) at 1/1000 dilution

Lane 1 : A549 cell lysate
Lane 2 : U-87 MG cell lysate
Lane 3 : Wild-type HeLa cell lysate
Lane 4 : PTGS2 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

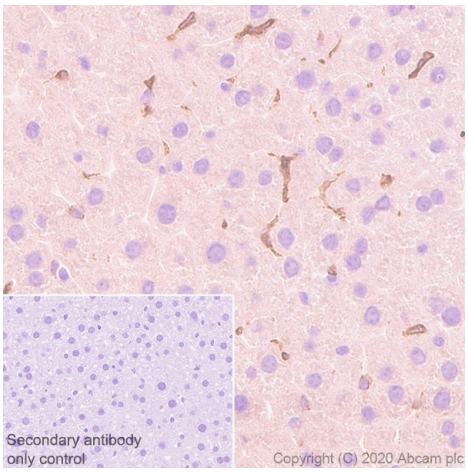
Performed under reducing conditions.

Predicted band size: 69 kDa
Observed band size: 75 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab179800**).

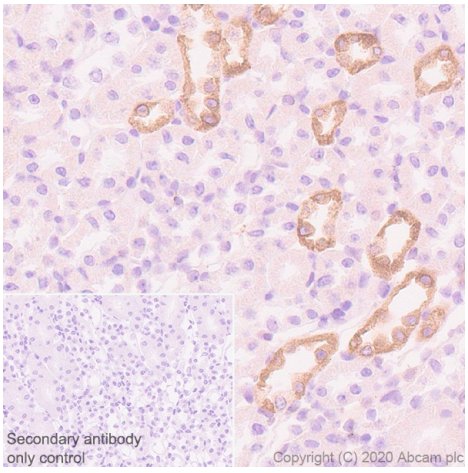
Lanes 1 - 4: Merged signal (red and green). Green - **ab179800** observed at 75 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab179800 was shown to react with COX2 / Cyclooxygenase 2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab255420** (knockout cell lysate **ab263795**) was used. Wild-type and COX2 / Cyclooxygenase 2 knockout samples were subjected to SDS-PAGE. **ab179800** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



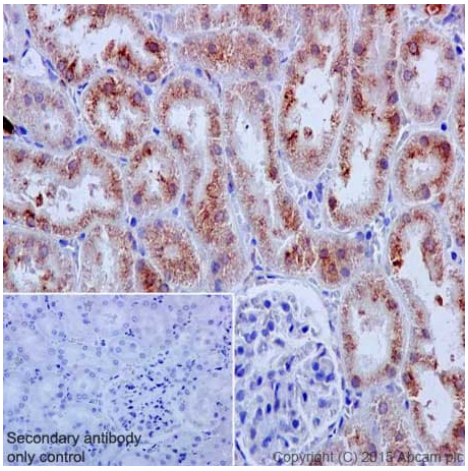
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling COX2 / Cyclooxygenase 2 with purified **ab179800** at 1/4000 dilution (0.125 µg/ml).
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: secondary antibody only control. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

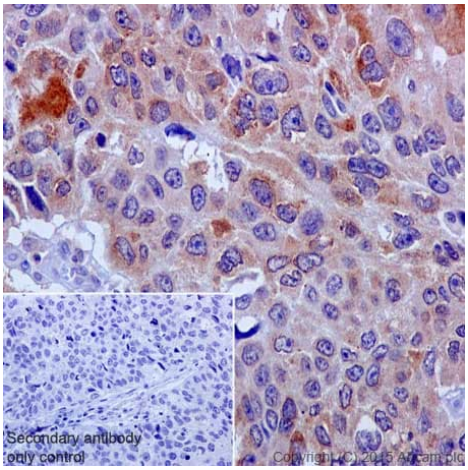
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling COX2 / Cyclooxygenase 2 with purified **ab179800** at 1/4000 dilution (0.125 µg/ml).
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: secondary antibody only control. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labelling COX2 / Cyclooxygenase 2 with purified **ab179800** at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

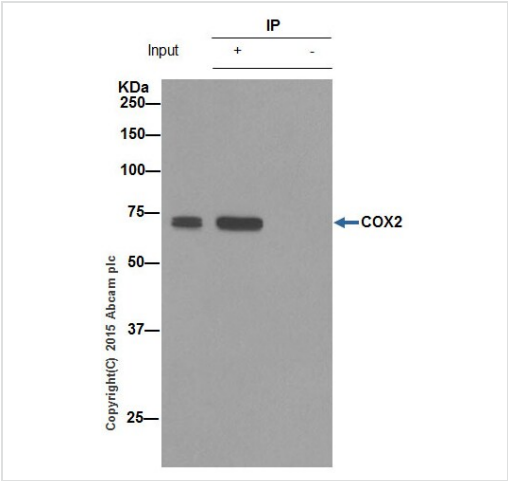
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue labelling COX2 / Cyclooxygenase 2 with purified **ab179800** at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**).



Immunoprecipitation - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

ab179800 (purified) at 1/30 immunoprecipitating COX2 in A549 whole cell lysate.

Lane 1 (input): A549 whole cell lysate (10µg)

Lane 2 (+): **ab179800** + A549 whole cell lysate.

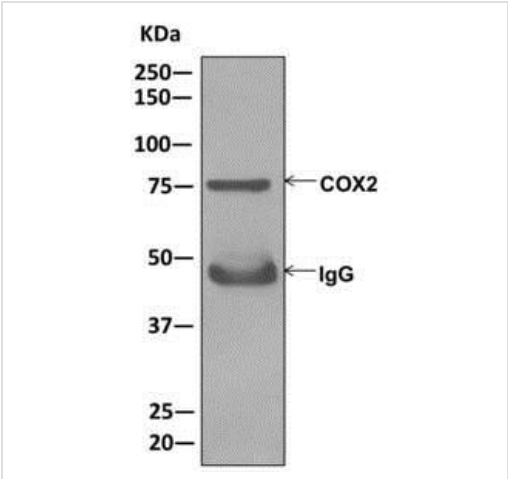
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab179800** in A549 whole cell lysate.

For western blotting, HRP-conjugated anti-rabbit IgG, specific for the reduced form of IgG, was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

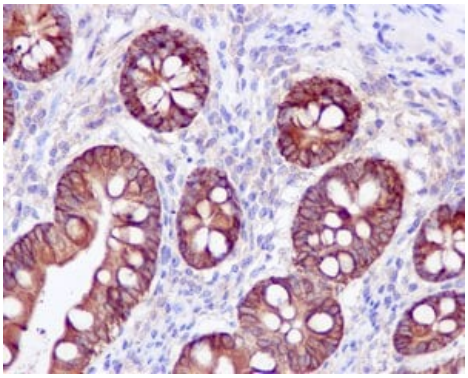
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**).



Immunoprecipitation - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

Western blot analysis on immunoprecipitation pellet from A549 cell lysate using unpurified **ab179800**.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**).

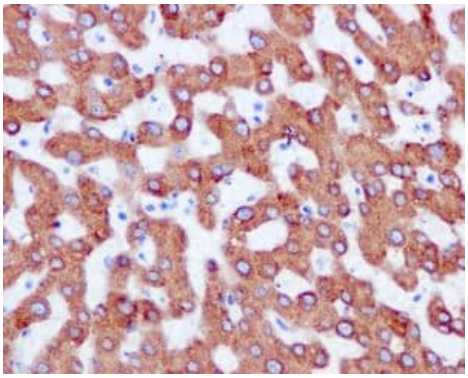


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded) analysis of human colon tissue labeling COX2 / Cyclooxygenase 2 with unpurified **ab179800** at a dilution of 1/250.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

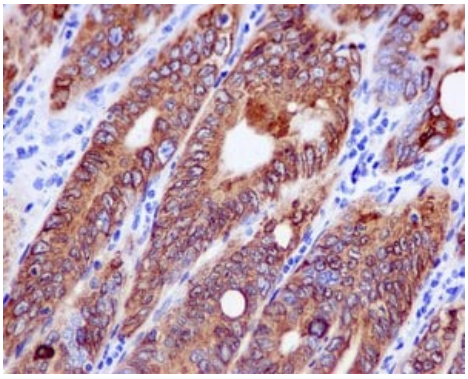


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded) analysis of human liver tissue labelling COX2 / Cyclooxygenase 2 with unpurified **ab179800** at a dilution of 1/250.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab179800**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

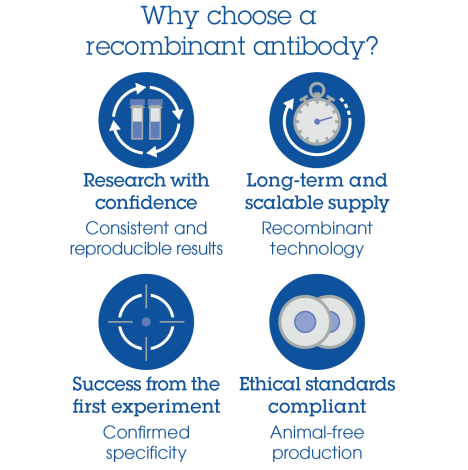


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

This IHC data was generated using the same anti-COX2 / Cyclooxygenase 2 antibody clone, EPR12012, in a different buffer formulation (cat# **ab179800**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colonic carcinoma tissue labelling COX2 with unpurified **ab179800** at a dilution of 1/250.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Anti-COX2 / Cyclooxygenase 2 antibody [EPR12012] - BSA and Azide free (ab227528)

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