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Product datasheet

Anti-ASS1 antibody [EPR12398] - BSA and Azide free ab231684

敲除验证 重组 RabMAb

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概述

产品名称	Anti-ASS1抗体[EPR12398] - BSA and Azide free
描述	兔单克隆抗体[EPR12398] to ASS1 - BSA and Azide free
宿主	Rabbit
经测试应用	**适用于:** Flow Cyt (Intra), WB, ICC/IF, IP, IHC-P
种属反应性	**与反应:** Mouse, Rat, Human **预测可用于:** Cow
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HAP1, HeLa, HepG2 cell lysates. Human fetal kidney and liver tissue lysates. Mouse liver and kidney lysates. Rat liver lysate. ICC/IF: MCF7 and HeLa cells. IHC-P: Human kidney, ureter tissue. Mouse kidney tissue. Flow Cyt (intra): HeLa cells. IP: HeLa cells.
常规说明	ab231684 is the carrier-free version of **ab170952**. 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. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	pH: 7.2 Constituent: 100% PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR12398
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab231684于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

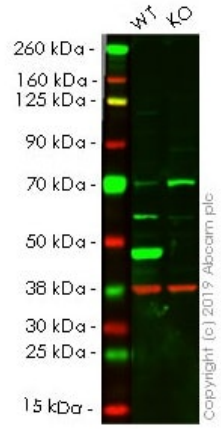
应用	Ab评论	说明
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 47 kDa.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

靶标

通路	Amino-acid biosynthesis; L-arginine biosynthesis; L-arginine from L-ornithine and carbamoyl phosphate: step 2/3. Nitrogen metabolism; urea cycle; (N(omega)-L-arginino)succinate from L-aspartate and L-citrulline: step 1/1.
疾病相关	Defects in ASS1 are the cause of citrullinemia type 1 (CTLN1) [MIM:215700]. Citrullinemia belongs to the urea cycle disorders. It is an autosomal recessive disease characterized primarily by elevated serum and urine citrulline levels. Ammonia intoxication is another manifestation. CTLN1 usually manifests in the first few days of life. Affected infants appear normal at birth, but as ammonia builds up in the body they present symptoms such as lethargy, poor feeding, vomiting, seizures and loss of consciousness. Less commonly, a milder CTLN1 form can develop later in childhood or adulthood.

序列相似性	Belongs to the argininosuccinate synthase family. Type 1 subfamily.

图片



Western blot - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

All lanes : Anti-ASS1 antibody [EPR12398] (**ab170952**) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : ASS1 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

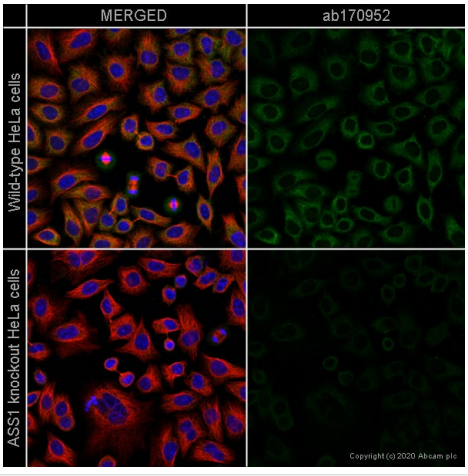
Performed under reducing conditions.

Predicted band size: 47 kDa
Observed band size: 47 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab170952**).

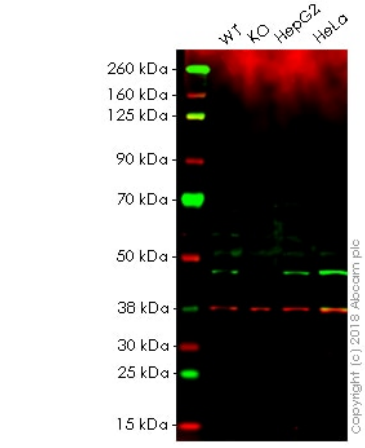
Lanes 1- 2: Merged signal (red and green). Green - **ab170952** observed at 47 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab170952 was shown to react with ASS1 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab264989** (knockout cell lysate **ab257143**) was used. Wild-type HeLa and ASS1 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab170952** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 1000 dilution and a 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.



Immunocytochemistry/ Immunofluorescence - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

This data was developed using the same antibody clone in a different buffer formulation (**ab170952**). **ab170952** staining ASS1 in wild-type HeLa cells (top panel) and ASS1 knockout HeLa cells (**ab264989**) (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab170952** at 1/100 dilution and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Western blot - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

All lanes : Anti-ASS1 antibody [EPR12398] (**ab170952**) at 1/20000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : ASS1 knockout HAP1 whole cell lysate
Lane 3 : HepG2 whole cell lysate
Lane 4 : HeLa whole cell lysate

Lysates/proteins at 20 µg per lane.

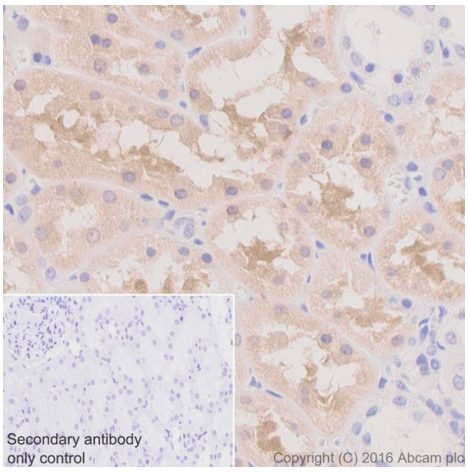
Predicted band size: 47 kDa

Lanes 1 - 4: Merged signal (red and green). Green - **ab170952** observed at 47 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab170952 was shown to recognize ASS1 in wild-type HAP1 cells as signal was lost at the expected MW in ASS1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and ASS1 knockout samples were subjected to SDS-PAGE. Ab170952 and **ab9484** (Mouse anti-

GAPDH loading control) were incubated overnight at 4°C at 1/20000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

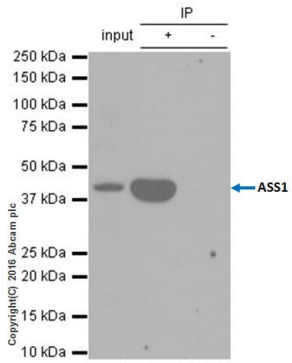
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human kidney tissue sections labeling ASS1 with Purified **ab170952** at 1:4000 dilution (0.25 µg/ml). Heat mediated antigen retrieval was performed using citrate buffer, pH6. Tissue was counterstained with Hematoxylin. **ab97051** Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1:500 dilution. PBS instead of the primary antibody was used as the negative control.

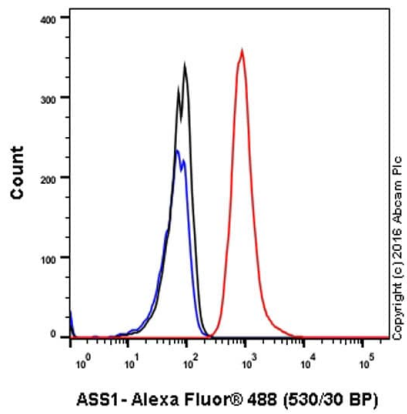
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunoprecipitation - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

ab170952 (purified) at 1:60 dilution (5ug) immunoprecipitating ASS1 in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10ug
Lane 2 (+): ab170952 & HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab170952** in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.

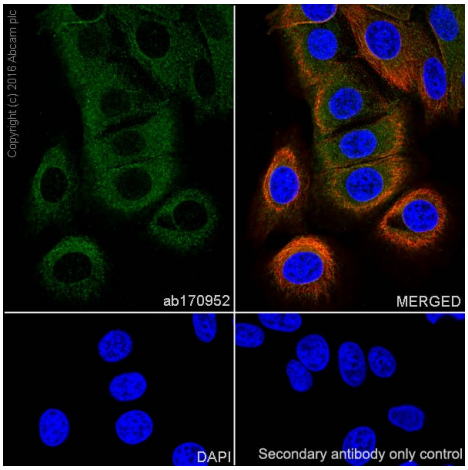
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Flow Cytometry (Intracellular) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Intracellular Flow Cytometry analysis of HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling ASS1 with purified **ab170952** at 1/100 dilution (10 ug/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

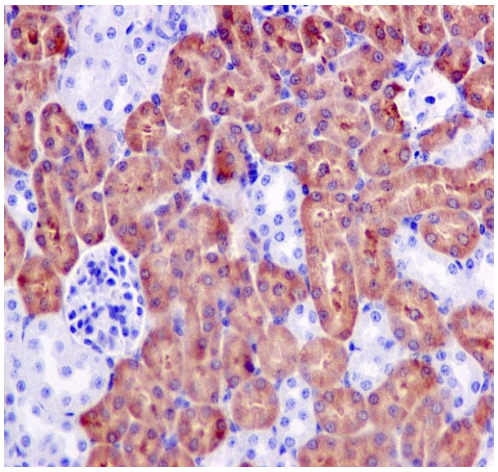
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunocytochemistry/ Immunofluorescence - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma cell line) cells labeling ASS1 with Purified **ab170952** at 1:100 dilution (10.2µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

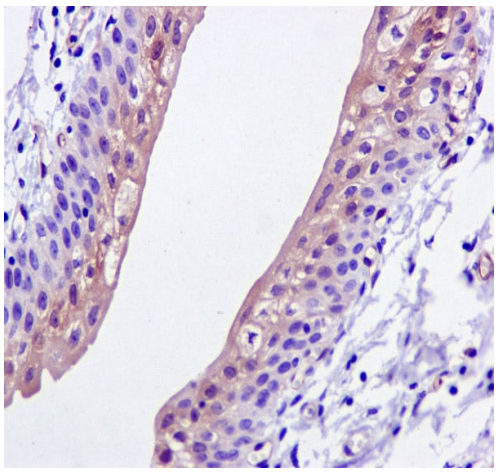
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

ab170952 showing +ve staining in Mouse kidney tissue.

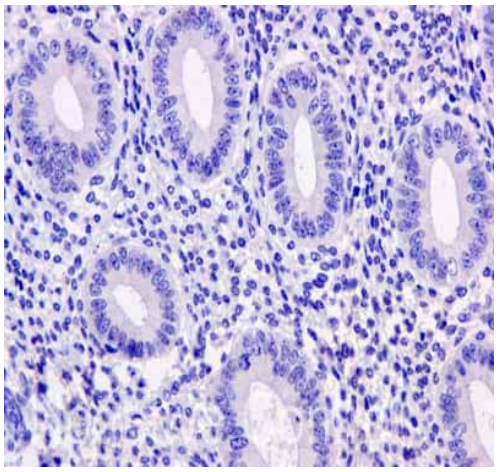
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

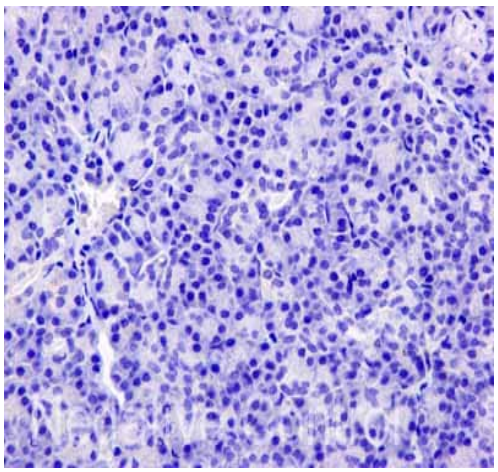
ab170952 showing +ve staining in Human normal ureter tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



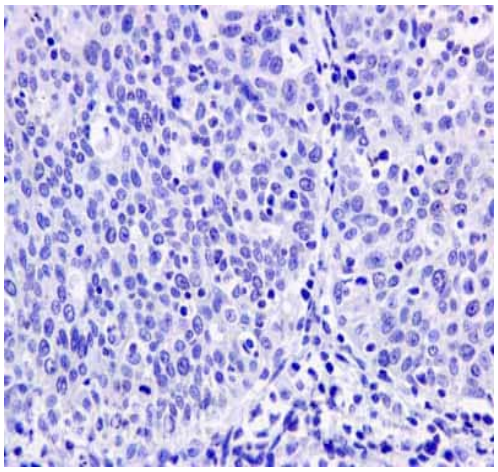
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

ab170952 showing -ve staining in Human normal uterus tissue. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



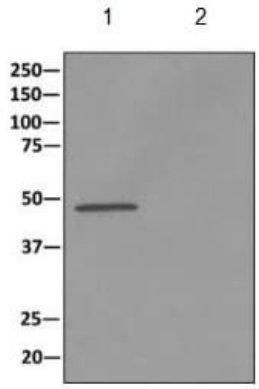
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

ab170952 showing -ve staining in Human normal pancreas tissue. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

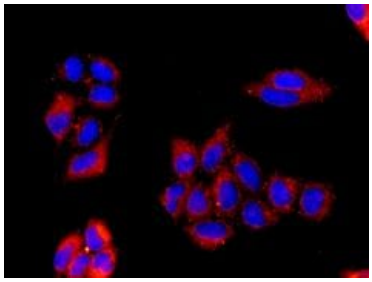
ab170952 showing -ve staining in Human cervical carcinoma tissue.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunoprecipitation - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Secondary antibody used is HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

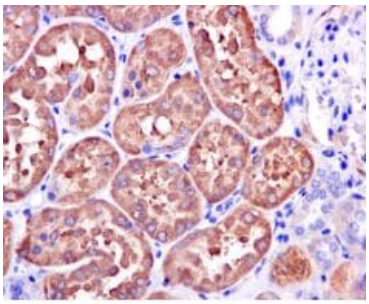
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunocytochemistry/ Immunofluorescence - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Immunofluorescent analysis of HeLa cells labeling ASS1 using **ab170952** at 1/50 dilution (red). DAPI nuclear staining (blue).

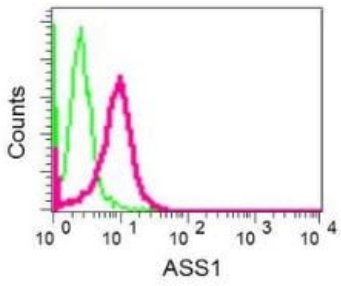
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling ASS1 with **ab170952** at 1/250 dilution.

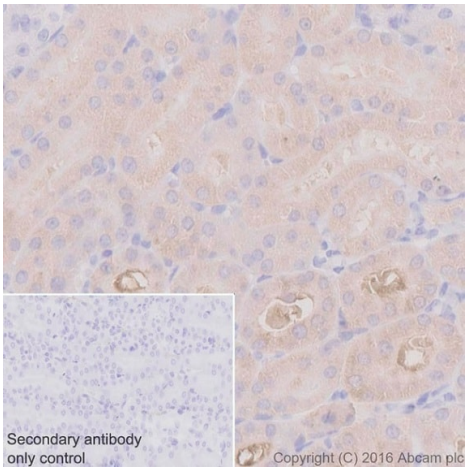
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Flow Cytometry (Intracellular) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Intracellular flow cytometric analysis of permeabilized Hela cells labeling ASS1 using **ab170952** at 1/500 dilution (red) or a rabbit IgG negative (green).

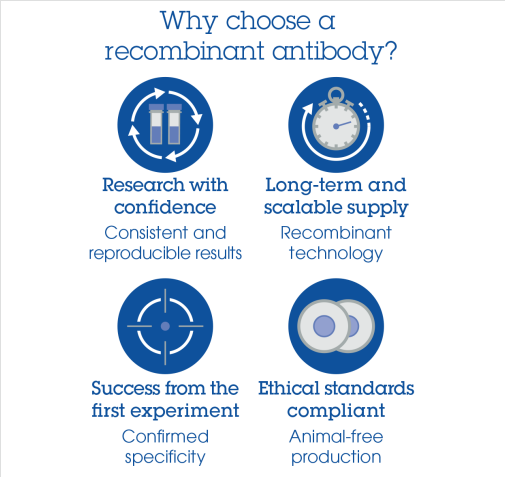
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

Immunohistochemical (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse kidney tissue sections labeling ASS1 with Purified **ab170952** at 1:4000 dilution (0.25 µg/ml). Heat mediated antigen retrieval was performed using citrate buffer, pH6. Tissue was counterstained with Hematoxylin. **ab97051** Goat Anti-Rabbit IgG H&L (HRP)
secondary antibody was used at 1:500 dilution. PBS instead of the primary antibody was used as the negative control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab170952**).



Anti-ASS1 antibody [EPR12398] - BSA and Azide free (ab231684)

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