abcam

Product datasheet

Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free ab276137

Recombinant RabMAb

1 Abreviews 11 Images

Overview

Product name	Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free
Description	Rabbit monoclonal [EPR24118-2] to Angiotensinogen - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, IP, ICC/IF, Flow Cyt (Intra) **Unsuitable for:** IHC-Fr
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human plasma, lung, liver and kidney tissue lysates; Rat plasma; Rat lung, kidney and liver tissue tissue lysate; HepG2 and Huh7 whole cell lysates. Flow Cyt (intra): HepG2 cells. ICC/IF: HepG2 cells. IHC-P: Rat kidney tissue; Human placenta, liver, and kidney tissue. IP: HepG2 whole cell lysate.
General notes	ab276137 is the carrier-free version of **ab276132**. 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**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR24118-2
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab276137 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 48-70 kDa (predicted molecular weight: 53 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.

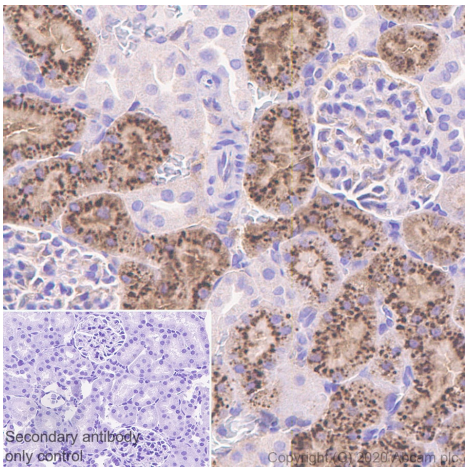
Application notes Is unsuitable for IHC-Fr.

Target

Function Essential component of the renin-angiotensin system (RAS), a potent regulator of blood pressure, body fluid and electrolyte homeostasis. In response to lowered blood pressure, the enzyme renin cleaves angiotensinogen to produce angiotensin-1 (angiotensin 1-10). Angiotensin-1 is a substrate of ACE (angiotensin converting enzyme) that removes a dipeptide to yield the physiologically active peptide angiotensin-2 (angiotensin 1-8). Angiotensin-1 and angiotensin-2 can be further processed to generate angiotensin-3 (angiotensin 2-8), angiotensin-4 (angiotensin 3-8). Angiotensin 1-7 is cleaved from angiotensin-2 by ACE2 or from angiotensin-1 by MME (neprilysin). Angiotensin 1-9 is cleaved from angiotensin-1 by ACE2.
Angiotensin-2 acts directly on vascular smooth muscle as a potent vasoconstrictor, affects

	cardiac contractility and heart rate through its action on the sympathetic nervous system, and alters renal sodium and water absorption through its ability to stimulate the zona glomerulosa cells of the adrenal cortex to synthesize and secrete aldosterone. Angiotensin-3 stimulates aldosterone release. Angiotensin 1-7 is a ligand for the G-protein coupled receptor MAS1 (By similarity). Has vasodilator and antidiuretic effects (By similarity). Has an antithrombotic effect that involves MAS1-mediated release of nitric oxide from platelets.
Tissue specificity	Expressed by the liver and secreted in plasma.
Involvement in disease	Genetic variations in AGT are a cause of susceptibility to essential hypertension (EHT) [MIM:145500]. Essential hypertension is a condition in which blood pressure is consistently higher than normal with no identifiable cause. Defects in AGT are a cause of renal tubular dysgenesis (RTD) [MIM:267430]. RTD is an autosomal recessive severe disorder of renal tubular development characterized by persistent fetal anuria and perinatal death, probably due to pulmonary hypoplasia from early-onset oligohydramnios (the Potter phenotype).
Sequence similarities	Belongs to the serpin family.
Post-translational modifications	Beta-decarboxylation of Asp-34 in angiotensin-2, by mononuclear leukocytes produces alanine. The resulting peptide form, angiotensin-A, has the same affinity for the AT1 receptor as angiotensin-2, but a higher affinity for the AT2 receptor.
Cellular localization	Secreted.

Images



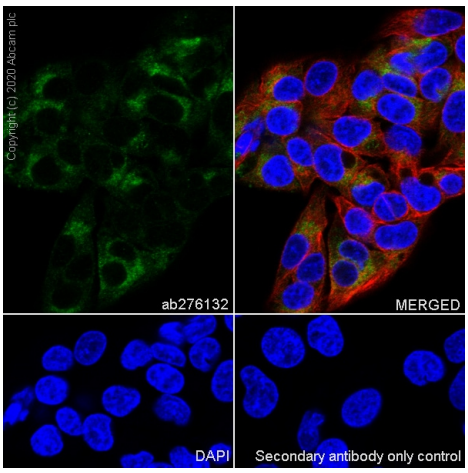
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling Angiotensinogen with **ab276132** at 1/500 (0.854 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on rat kidney (PMID: 28716988). The section was incubated with **ab276132** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 minutes.

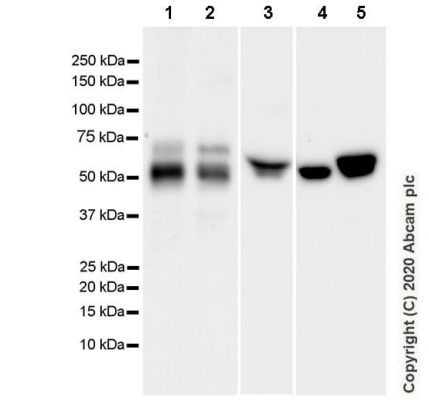


Immunocytochemistry/ Immunofluorescence - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 100% Methanol permeabilized HepG2 cells labelling Angiotensinogen with **ab276132** at 1/100 (4.27 ug/ml) dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in HepG2 cell line. **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Western blot - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

All lanes : Anti-Angiotensinogen antibody [EPR24118-2] (**ab276132**) at 1/1000 dilution

Lane 1 : HepG2 (human hepatocellar carcinoma epithelial cell), whole cell lysate
Lane 2 : Huh7 (human hepatocellar carcinoma epithelial cell), whole cell lysate
Lane 3 : Human lung tissue lysate
Lane 4 : Human liver tissue lysate
Lane 5 : Human kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 53 kDa
Observed band size: 48-70 kDa

This data was developed using **ab276132**, the same antibody

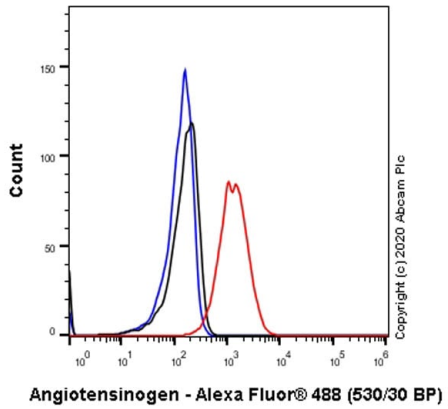
clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Angiotensinogen undergoes glycosylation. The molecular weight observed is consistent with what has been described in literature(PMID: 9694881).

Lanes 1 & 2 of the blot were developed using a higher sensitivity ECL substrate.

Exposure times: Lane 1, 2: 59 seconds; Lane 3: 3.25 seconds;Lane 4, 5: 15 seconds

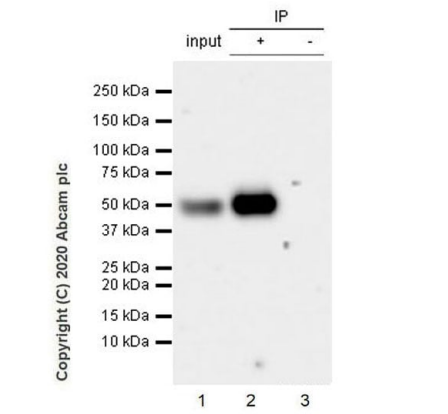


Flow Cytometry (Intracellular) - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labelling Angiotensinogen with **ab276132** at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (**ab172730**) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor®488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Angiotensinogen was immunoprecipitated from 0.35 mg HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate with **ab276132** at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using **ab276132** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

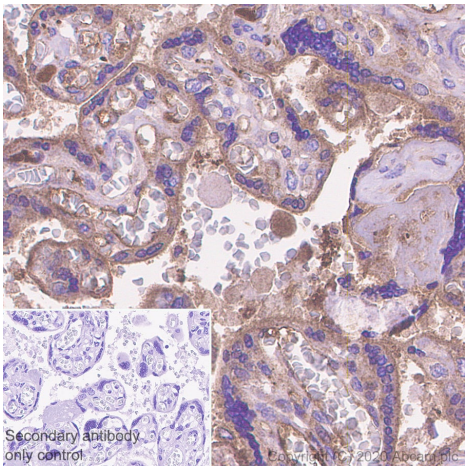
Lane 1: HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate 10 ug

Lane 2: **ab276132** IP in HepG2 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab276132** in HepG2 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 23 seconds.



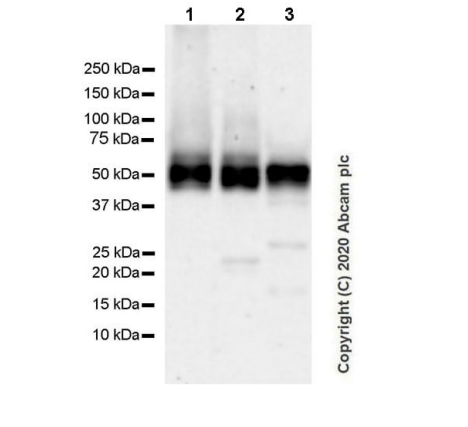
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human placenta tissue labeling Angiotensinogen with **ab276132** at 1/500 (0.854 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on human placenta (PMID: 21215447). The section was incubated with **ab276132** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 minutes.



Western blot - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

All lanes : Anti-Angiotensinogen antibody [EPR24118-2] (**ab276132**) at 1/1000 dilution

Lane 1 : Rat lung tissue lysate
Lane 2 : Rat liver tissue lysate
Lane 3 : Rat kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

Predicted band size: 53 kDa
Observed band size: 48-70 kDa

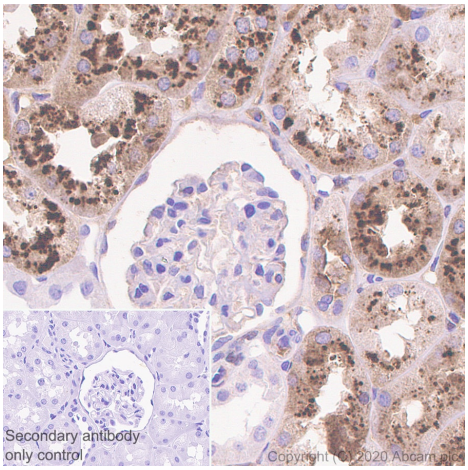
This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Angiotensinogen undergoes glycosylation. The molecular weight observed is consistent with what have been described in literature(PMID: 9694881).

This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 127 seconds.



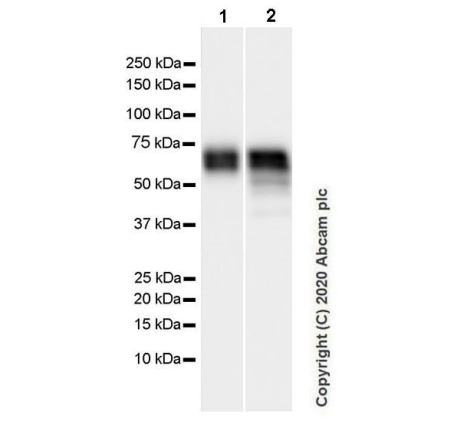
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling Angiotensinogen with **ab276132** at 1/500 (0.854 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on human kidney. The section was incubated with **ab276132** for 30 minutes at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 minutes.



Western blot - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

All lanes : Anti-Angiotensinogen antibody [EPR24118-2] (**ab276132**) at 1/1000 dilution

Lane 1 : Human plasma
Lane 2 : Rat plasma

Lysates/proteins at 20 µl per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/100000 dilution

Predicted band size: 53 kDa
Observed band size: 48-70 kDa

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

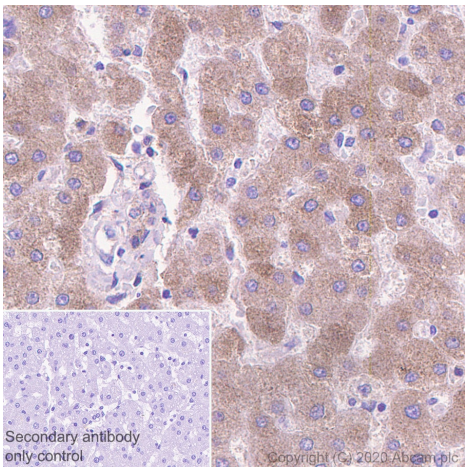
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Angiotensinogen undergoes glycosylation. The molecular weight observed is consistent with what have been described in literature(PMID: 9694881).

Exposure times:

Lane 1: 15 seconds

Lane 2: 3.25 seconds



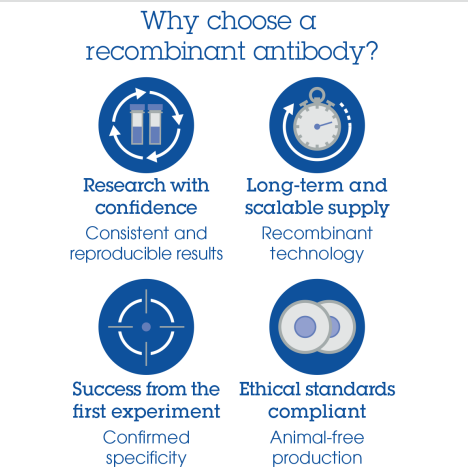
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

This data was developed using **ab276132**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Angiotensinogen with **ab276132** at 1/500 (0.854 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on human liver. The section was incubated with **ab276132** for 30 minutes at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 minutes.



Anti-Angiotensinogen antibody [EPR24118-2] - BSA and Azide free (ab276137)

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

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