abcam

Product datasheet

# Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free ab215869

Recombinant RabMAb

5 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free |
| **Description** | Rabbit monoclonal [EPR2931] to Angiotensinogen - BSA and Azide free |
| **Host species** | Rabbit |
| **Specificity** | This antibody is raised against the Human Angiotensinogen protein. This has little homology with mouse or rat Angiotensinogen and in our hands we do not get good results when testing in these species (in western blot the band is weak or absent and at a lower molecular weight than in human samples) therefore we cannot guarantee this product for use in these species. When using this antibody for western blot we recommend blocking with 5% BSA for best results. In our hands, blocking with milk does not give optimal results in WB and some lower molecular weight binding can be observed. |
| **Tested applications** | **Suitable for:** ICC/IF, IP, WB<br>**Unsuitable for:** Flow Cyt or IHC-P |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **Positive control** | Human fetal artery, fetal heart, fetal liver, adult kidney, HepG2, 293T, and plasma lysates; HepG2 cells. |
| **General notes** | ab215869 is the carrier-free version of **ab108334**.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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

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|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **Storage buffer** | pH: 7.2<br>Constituent: PBS |
| **Carrier free** | Yes |
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |
| **Clone number** | EPR2931 |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab215869 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 |
|---|---|---|
| **ICC/IF** | | Use at an assay dependent concentration. |
| **IP** | | Use at an assay dependent concentration. |
| **WB** | | Use at an assay dependent concentration. Predicted molecular weight: 53 kDa.<br>Block with 5% BSA. |

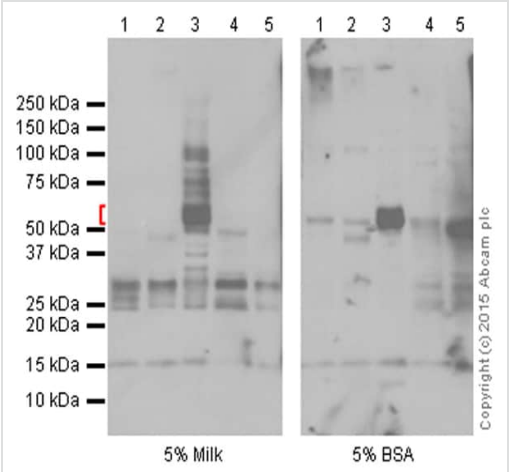
**Application notes** Is unsuitable for Flow Cyt or IHC-P.

## 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.<br>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.<br>Angiotensin-3 stimulates aldosterone release.<br>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.<br>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




Western blot - Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free (ab215869)

**All lanes :** Anti-Angiotensinogen antibody [EPR2931] (**ab108334**) at 1/1000 dilution

**Lane 1 :** Mouse kidney whole tissue lysate
**Lane 2 :** Rat kidney whole tissue lysate
**Lane 3 :** Human kidney whole tissue lysate
**Lane 4 :** Mouse liver whole tissue lysate
**Lane 5 :** Rat liver whole tissue lysate

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes :** Goat anti-rabbit IgG, (H+L), peroxidase conjugated at 1/2000 dilution

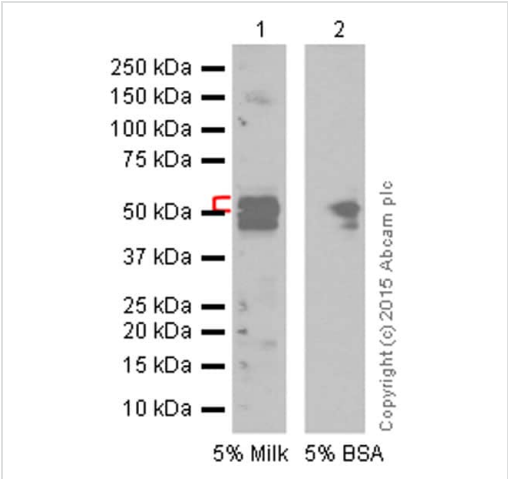
**Predicted band size:** 53 kDa

**Exposure time:** 1 minute

This data was developed using **ab108334**, the same antibody clone in a different buffer formulation.

**ab108334** targeting angiotensinogen in various mouse, rat and human tissues (see lane descriptions).

**Blocking buffer:** 1st lanes 1-5: 5% NFDM/TBST; 2nd lanes 1-5: BSA/TBST.




Western blot - Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free (ab215869)

**All lanes :** Anti-Angiotensinogen antibody [EPR2931] (**ab108334**) at 1/1000 dilution

**All lanes :** Human fetal liver whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

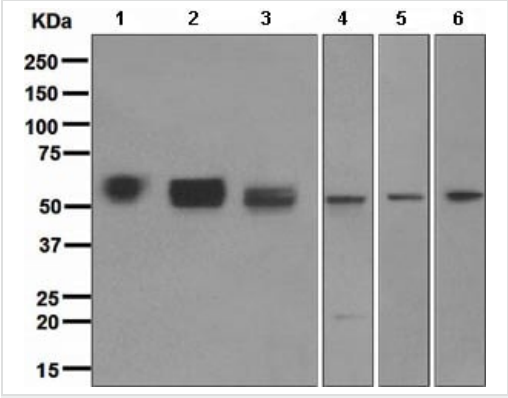
**All lanes :** Goat anti-rabbit IgG (H+L) peroxidase conjugated at 1/2000 dilution

**Predicted band size:** 53 kDa

**Exposure time:** 3 minutes

This data was developed using **ab108334**, the same antibody clone in a different buffer formulation.

**Blocking and dilution buffer:** Lane 1: 5% NFDM/TBST. Lane 2: BSA/TBST.




Western blot - Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free (ab215869)

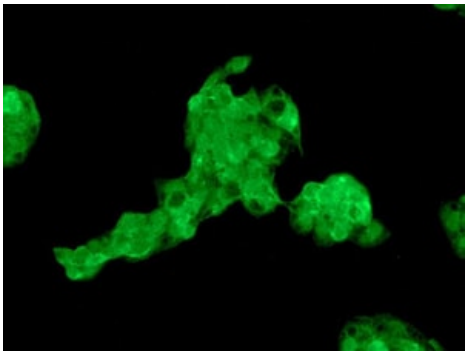
**All lanes :** Anti-Angiotensinogen antibody [EPR2931] (**ab108334**) at 1/1000 dilution

**Lane 1 :** Human fetal artery lysate
**Lane 2 :** Human fetal heart lysate
**Lane 3 :** Human fetal liver lysate
**Lane 4 :** HepG2 lysate
**Lane 5 :** 293T lysate
**Lane 6 :** Human plasma lysate

Lysates/proteins at 10 µg per lane.

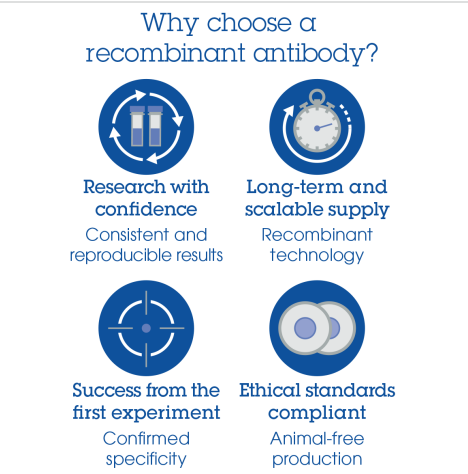
**Predicted band size:** 53 kDa

This data was developed using **ab108334**, the same antibody clone in a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free (ab215869)

This data was developed using **ab108334**, the same antibody clone in a different buffer formulation.**ab108334**, at 1/100 dilution, staining Angiotensinogen in HepG2 cells by Immunofluorescence.




Anti-Angiotensinogen antibody [EPR2931] - BSA and Azide free (ab215869)



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