

# Anti-Angiotensinogen antibody [EPR20599] - BSA and Azide free ab240389

Recombinant RabMAb

3 Images

### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-Angiotensinogen antibody [EPR20599] - BSA and Azide free   |
| <b>Description</b>         | Rabbit monoclonal [EPR20599] to Angiotensinogen - BSA and Azide free  |
| <b>Host species</b>        | Rabbit  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, IP   |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Rat, Human   |
| <b>Immunogen</b>           | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.   |
| <b>General notes</b>       | <p>ab240389 is the carrier-free version of <a href="#">ab213705</a>.</p> <p>Our <b>carrier-free</b> 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.</p> <p>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.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> |

### Properties

|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| <b>Storage buffer</b>       | pH: 7.2<br>Constituent: PBS                   |
| <b>Carrier free</b>         | Yes   |
| <b>Purity</b>               | Protein A purified                            |
| <b>Clonality</b>            | Monoclonal                                    |
| <b>Clone number</b>         | EPR20599                                      |
| <b>Isotype</b>              | IgG   |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab240389 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   |
|-------------|-----------|---|
| <b>WB</b>   |           | Use at an assay dependent concentration. Detects a band of approximately 51 kDa (predicted molecular weight: 51 kDa). |
| <b>IP</b>   |           | Use at an assay dependent concentration.  |

## Target

|                               |  |
|-------------------------------|--|
| <b>Function</b>               | <p>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.</p> <p>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.</p> <p>Angiotensin-3 stimulates aldosterone release.</p> <p>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.</p> |
| <b>Tissue specificity</b>     | Expressed by the liver and secreted in plasma.   |
| <b>Involvement in disease</b> | <p>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.</p> <p>Defects in AGT are a cause of renal tubular dysgenesis (RTD) [MIM:267430]. RTD is an</p>  |

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.

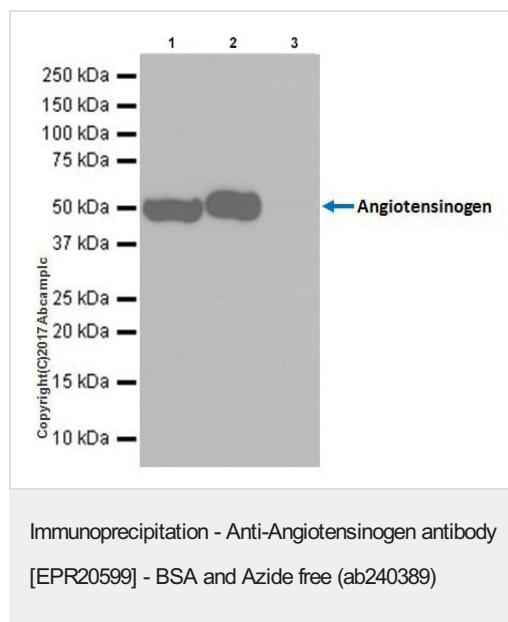
## Post-translational modifications

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



Angiotensinogen was immunoprecipitated from 0.35 mg of mouse liver lysate with **ab213705** at 1/40 dilution.

Western blot was performed from the immunoprecipitate using **ab213705** at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: Mouse liver lysate 10 µg (Input).

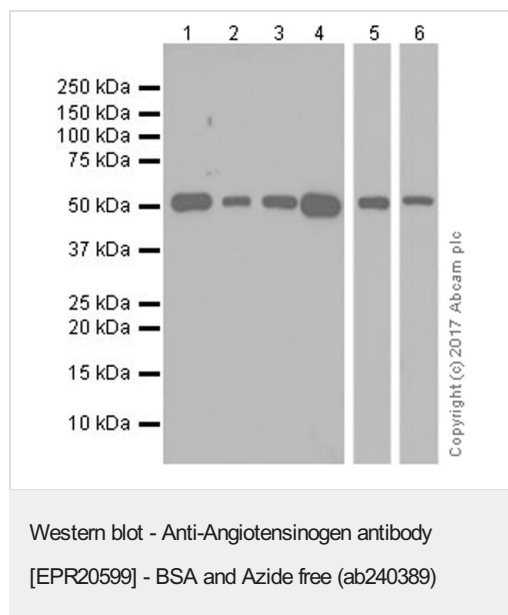
Lane 2: **ab213705** IP in mouse liver lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab213705** in mouse liver lysate.

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

Exposure time: 30 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213705**).



**All lanes** : Anti-Angiotensinogen antibody [EPR20599] - BSA and Azide free (ab240389) at 1/1000 dilution

**Lane 1** : Hepa-1-6 (Mouse hepatoma epithelial cell line) whole cell lysate

**Lane 2** : mIMCD3 (Mouse inner medullary collecting duct epithelial cell line) whole cell lysate

**Lane 3** : Neuro-2a (Mouse neuroblastoma cell line) whole cell lysate

**Lane 4** : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

**Lane 5** : Mouse liver tissue lysate

**Lane 6** : Rat liver 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:** 51 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1-4: 1 minute; Lane 5: 5 seconds; Lane 6: 3 seconds.

The expression profile/molecular weight observed is consistent with what has been described in the literature (PMID: 22518004).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab213705](#)).

Why choose a recombinant antibody?

|  |  |
|--|--|
|  <p><b>Research with confidence</b><br/>Consistent and reproducible results</p> |  <p><b>Long-term and scalable supply</b><br/>Recombinant technology</p> |
|  <p><b>Success from the first experiment</b><br/>Confirmed specificity</p>      |  <p><b>Ethical standards compliant</b><br/>Animal-free production</p>   |

Anti-Angiotensinogen antibody [EPR20599] - BSA and Azide free ([ab240389](#))

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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