abcam

Product datasheet

Anti-Angiotensinogen antibody [EPR2931] ab108334

Recombinant RabMAb

4 Abreviews 10 References 5 Images

Overview

Product name	Anti-Angiotensinogen antibody [EPR2931]
Description	Rabbit monoclonal [EPR2931] to Angiotensinogen
Host species	Rabbit
Specificity	ab108334 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:** WB, IP, ICC/IF **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	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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2931
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108334 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	★★★★☆ (1)	1/1000 - 1/10000. Predicted molecular weight: 53 kDa. Block with 5% BSA
IP		1/10 - 1/100.
ICC/IF	★☆☆☆☆ (1)	1/100 - 1/250.

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

Target

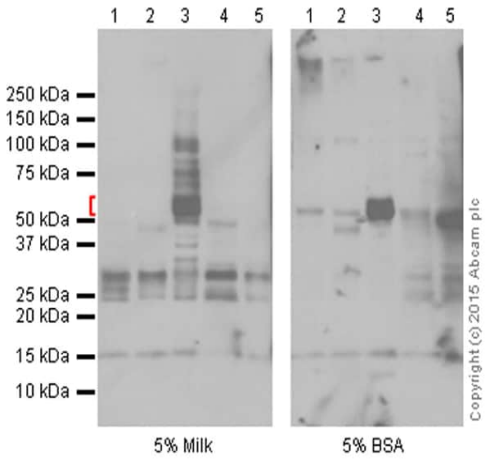
Function Essential component of the renin-angiotensin system (RAS), a potent regulator of blood pressure, body fluid and electrolyte homeostasis. In response to lowered blood pressure, the enzyme renin cleaves angiotensinogen to produce angiotensin-1 (angiotensin 1-10). Angiotensin-1 is a substrate of 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.
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



Western blot - Anti-Angiotensinogen antibody [EPR2931] (ab108334)

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.

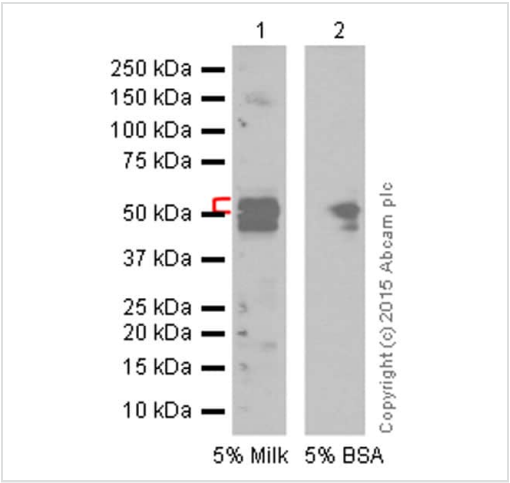
Secondary
All lanes : Goat anti-rabbit IgG, (H+L), peroxidase conjugated at 1/2000 dilution

Predicted band size: 53 kDa

Exposure time: 1 minute

Ab108334 targeting angiotensinogen in various mouse, rat and human tissues (see lane descriptions).

Blocking buffer for the first lanes 1-5: 5% NFDM/TBST; the second lanes 1-5: BSA/TBST.



Western blot - Anti-Angiotensinogen antibody [EPR2931] (ab108334)

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

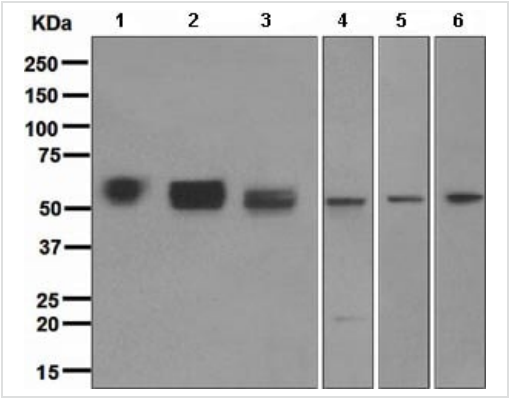
All lanes : Goat anti-rabbit IgG (H+L) peroxidase conjugated at 1/2000 dilution

Predicted band size: 53 kDa

Exposure time: 3 minutes

Lane 1 blocking buffer: NFDM/TBST

Lane 2 blocking buffer: BSA/TBST



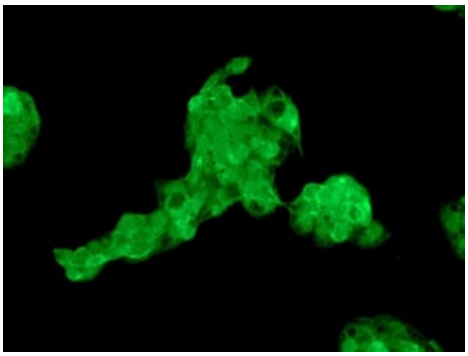
Western blot - Anti-Angiotensinogen antibody [EPR2931] (ab108334)

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

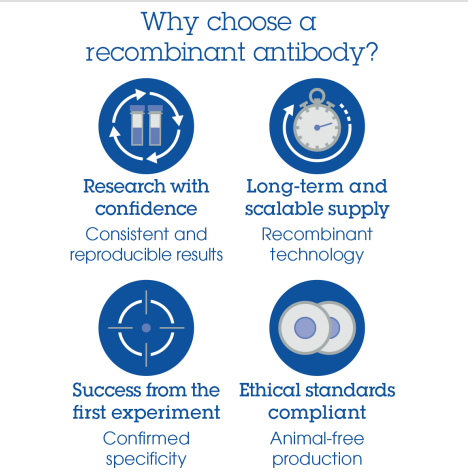
Lysates/proteins at 10 µg per lane.

Predicted band size: 53 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Angiotensinogen antibody [EPR2931] (ab108334)

ab108334, at 1/100 dilution, staining Angiotensinogen in HepG2 cells by Immunofluorescence.



Anti-Angiotensinogen antibody [EPR2931] (ab108334)

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