abcam

Product datasheet

Anti-Angiotensinogen antibody ab103549

2 Images

Overview

Product name	Anti-Angiotensinogen antibody
Description	Rabbit polyclonal to Angiotensinogen
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein, corresponding to amino acids 1-485 of Human Angiotensinogen (AAH11519.1).
Positive control	Human pancreas tissue lysate and 293T cell lysate transfected with Angiotensinogen.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Constituent: 100% PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab103549 in the following tested applications.

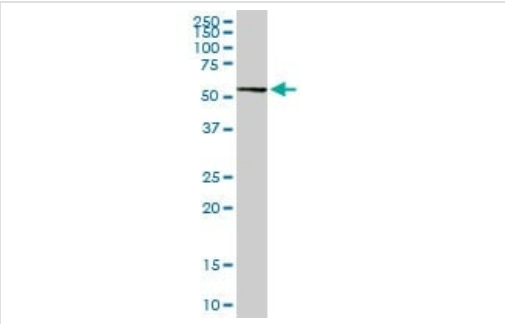
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 53 kDa.

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.

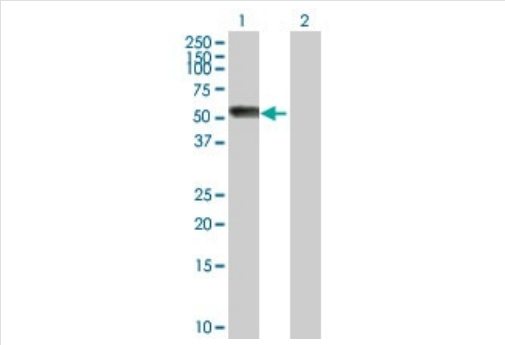
Images



Western blot - Anti-Angiotensinogen antibody (ab103549)

Anti-Angiotensinogen antibody (ab103549) at 1/500 dilution + Human pancreas tissue lysate at 50 µg

Predicted band size: 53 kDa



Western blot - Anti-Angiotensinogen antibody (ab103549)

All lanes : Anti-Angiotensinogen antibody (ab103549) at 1/500 dilution

Lane 1 : Angiotensinogen transfected 293T cell
Lane 2 : Non-transfected 293T cell

Lysates/proteins at 25 µg per lane.

Predicted band size: 53 kDa

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