abcam

Product datasheet

Anti-Angiotensinogen antibody ab97381

5 Images

Overview

Product name Anti-Angiotensinogen antibody

Description Rabbit polyclonal to Angiotensinogen

Host species Rabbit

Tested applications Suitable for: ICC/IF, WB, IHC-P

Species reactivity Reacts with: Mouse, Rat, Human

Immunogen Recombinant fragment corresponding to Human Angiotensinogen aa 1-446.

Sequence:

MRKRAPQSEMAPAGVSLRATILCLLAWAGLAAGDRVYIHP

FHLVIHNEST

CEQLAKANAGKPKDPTFIPAPIQAKTSPVDEKALQDQLVL

VAAKLDTEDK

LRAAMVGMLANFLGFRIYGMHSELWGVVHGATVLSPTAV

FGTLASLYLGA

LDHTADRLQAILGVPWKDKNCTSRLDAHKVLSALQAVQG

LLVAQGRADSQ

AQLLLSTVVGVFTAPGLHLKQPFVQGLALYTPVVLPRSLD

FTELDVAAEK

IDRFMQAVTGWKTGCSLMGASVDSTLAFNTYVHFQGKMK

GFSLLAEPQEF

WVDNSTSVSVPMLSGMGTFQHWSDIQDNFSVTQVPFTE

SACLLLIQPHYA

 ${\tt SDLDKVEGLTFQQNSLNWMKKLSPRTIHLTMPQLVLQGSY}$

DLQDLLAQAE

LPAILHTELNLQKLSNDRIRVGEVLNSIFFELEADEREPTES

TQQL

Database link: P01019

Run BLAST with
Run BLAST with

Positive control WB: HepG2 lysate. Mouse and Rat plasma. IHC-P: Hepatocellular carcinoma Huh7 xenograft.

ICC/IF: HepG2 cells.

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.

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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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.00

Preservative: 0.01% Thimerosal (merthiolate)

Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab97381 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		1/100 - 1/1000.
WB		1/500 - 1/3000. Predicted molecular weight: 53 kDa.
IHC-P		1/100 - 1/250.

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-translationalBeta-decarboxylation of Asp-34 in angiotensin-2, by mononuclear leukocytes produces alanine.

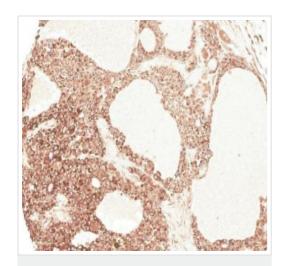
The resulting peptide form, angiotensin-A, has the same affinity for the AT1 receptor as

angiotensin-2, but a higher affinity for the AT2 receptor.

Cellular localization Secreted.

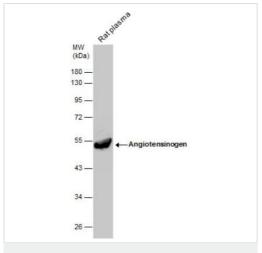
Images

modifications



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Angiotensinogen antibody (ab97381)

Immunohistochemical analysis of paraffin-embedded Hepatocellular carcinoma Huh7, using Angiotensinogen antibody (ab97381) at 1/100 dilution.



Western blot - Anti-Angiotensinogen antibody (ab97381)

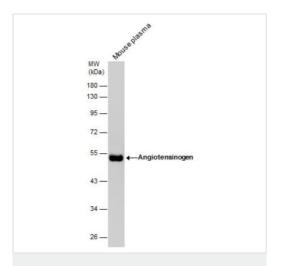
Anti-Angiotensinogen antibody (ab97381) at 1/1000 dilution + Rat plasma at 50 μg

Predicted band size: 53 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Angiotensinogen antibody (ab97381)

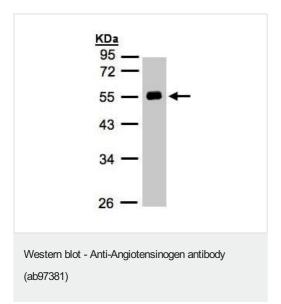
HepG2 cells stained for Angiotensinogen using ab97381 at 1/200 dilution in ICC/IF.



Western blot - Anti-Angiotensinogen antibody (ab97381)

Anti-Angiotensinogen antibody (ab97381) at 1/1000 dilution + Mouse plasma at 50 μg

Predicted band size: 53 kDa



Anti-Angiotensinogen antibody (ab97381) at 1/1000 dilution + HepG2 whole cell lysate at 30 μg

Predicted band size: 53 kDa

10% SDS PAGE

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