ARG10597
anti-Angiotensin II antibody

Package: 50 µl, 25 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Angiotensin II
Tested Reactivity	Hu, Ms, Rat, Ctl, Dog, Pig
Tested Application	IHC-P
Specificity	This antibody recognizes to Human Angiotensin II and Angiotensin III.
Host	Rabbit
Clonality	Polyclonal
Target Name	Angiotensin II
Immunogen	Synthetic peptide sequence: DRVYIHPF
Conjugation	Un-conjugated
Alternate Names	Des-Asp[1]-angiotensin II; Angiotensin III; SERPINA8; Angiotensinogen; Angiotensin 3-8; Ang IV; Ang I; Angiotensin I; Angiotensin II; Angiotensin 1-8; Angiotensin 1-10; Angiotensin IV; Ang III; Ang II; Angiotensin 2-8; ANHU; Serpin A8

Application Instructions

Application table

Application	Dilution
IHC-P	1:100 - 1:200

Application Note: Antigen retrieval for IHC-P: 10 mmol/L Sodium citrate buffer at pH 6.0, 95°C, 30 min.

* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

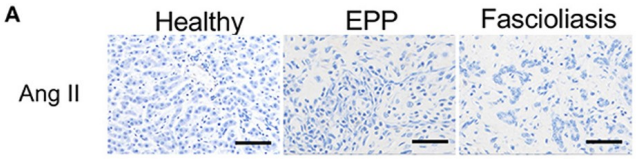
Form	Powder
Purification	Unpurified
Buffer	Serum
Reconstitution	Reconstitute with 50 µl of distilled water for the equivalent of undiluted antiserum.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 183 Human

	GeneID: 24179 Rat
	Swiss-port # P01015 Rat
	Swiss-port # P01019 Human
Gene Symbol	AGT
Gene Full Name	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
Background	The protein encoded by this gene, pre-angiotensinogen or angiotensinogen precursor, is expressed in the liver and is cleaved by the enzyme renin in response to lowered blood pressure. The resulting product, angiotensin I, is then cleaved by angiotensin converting enzyme (ACE) to generate the physiologically active enzyme angiotensin II. The protein is involved in maintaining blood pressure and in the pathogenesis of essential hypertension and preeclampsia. Mutations in this gene are associated with susceptibility to essential hypertension, and can cause renal tubular dysgenesis, a severe disorder of renal tubular development. Defects in this gene have also been associated with non-familial structural atrial fibrillation, and inflammatory bowel disease. [provided by RefSeq, Jul 2008]
Function	Essential component of the renin-angiotensin system (RAS), a potent regulator of blood pressure, body fluid and electrolyte homeostasis. 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. Has vasodilator and antidiuretic effects. Has an antithrombotic effect that involves MAS1-mediated release of nitric oxide from platelets. [UniProt]
Calculated Mw	53 kDa
PTM	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. In response to low blood pressure, the enzyme renin/REN cleaves angiotensinogen to produce angiotensin-1. Angiotensin-1 is a substrate of ACE (angiotensin converting enzyme) that removes a dipeptide to yield the physiologically active peptide angiotensin-2. Angiotensin-1 and angiotensin-2 can be further processed to generate angiotensin-3, angiotensin-4. Angiotensin 1-9 is cleaved from angiotensin-1 by ACE2 and can be further processed by ACE to produce angiotensin 1-7, angiotensin 1-5 and angiotensin 1-4. Angiotensin 1-7 has also been proposed to be cleaved from angiotensin-2 by ACE2 or from angiotensin-1 by MME (neprilysin). The disulfide bond is labile. Angiotensinogen is present in the circulation in a near 40:60 ratio with the oxidized disulfide-bonded form, which preferentially interacts with receptor-bound renin.

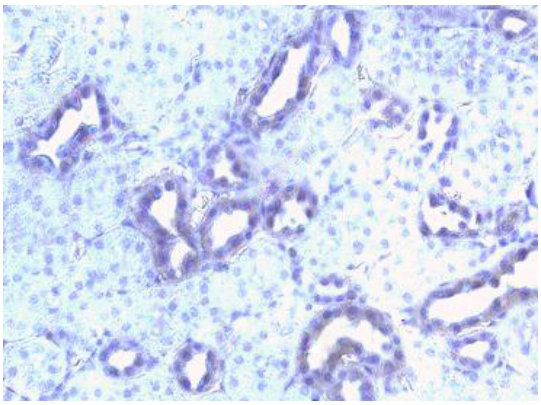
Images



ARG10597 anti-Angiotensin II antibody IHC-P image

Immunohistochemistry: Cattle mast cell stained with ARG10597 anti-Angiotensin II antibody at 1:200 dilution.

From Masaki Konnai et al. 36605763 (2022), doi: 10.3389/fvets.2022.972180, Fig. 3A.



ARG10597 anti-Angiotensin II antibody IHC-P image

Immunohistochemistry: Formalin-fixed and Paraffin-embedded Rat kidney tissue stained with ARG10597 anti-Angiotensin II antibody at 1:200 dilution (1h, RT).