

ARG70007 anti-Angiotensin I 1-7 / Angiotensin II 1-7 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Angiotensin I 1-7 / Angiotensin II 1-7
Tested Reactivity	Hu, Ms, Rat, Dog
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Angiotensin I 1-7 / Angiotensin II 1-7
Species	Human
Immunogen	Asp - Arg - Val - Tyr - Ile - His - Pro
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

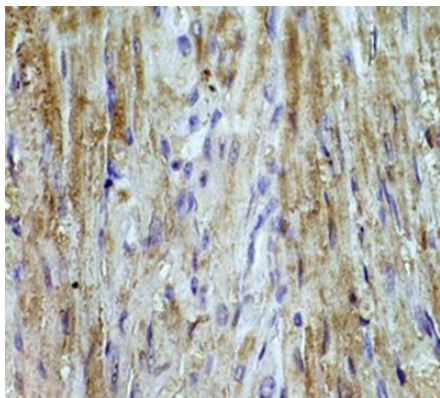
Application Instructions

Application table	Application	Dilution
	ICC/IF	1:100-1:500
	IHC-P	1:100-1:500
	WB	1:100-1:500
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat & Mouse Heart	

Properties

Form	Powder
Purification	Unpurified
Buffer	Serum
Reconstitution	Reconstitute with 50 µl of distilled water for the equivalent of undiluted antiserum.
Storage instruction	Please store the lyophilized antibody at -20°C upon receipt. For optimal results, use the antibody immediately after reconstitution. Once reconstituted, the antibody is stable for up to three days at 4°C. For long-term storage, aliquot and store at -20°C or below. Storage in frost free is not recommended. Avoid repeated freeze/thaw cycles. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

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]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Metabolism antibody
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.



ARG70007 anti-Angiotensin I 1-7 / Angiotensin II 1-7 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse heart stained with ARG70007 anti-Angiotensin I 1-7 / Angiotensin II 1-7 antibody at 1:100 dilution.