ARG80960
Human Angiotensin 1-7 ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG80960 Human Angiotensin 1-7 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Angiotensin 1-7 in cell culture supernatant, serum, plasma and other suitable sample solution.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Angiotensin 1-7
Conjugation	HRP
Sensitivity	2.0 pg/ml
Sample Type	Cell culture supernatant, serum, plasma and other suitable sample solution.
Standard Range	15.6 - 500 pg/ml
Sample Volume	100 µl
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

Assay Time	90 min

Properties

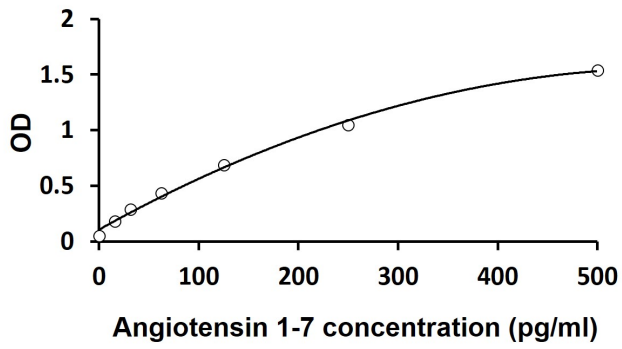
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 183 Human 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]
Highlight	Related products: Angiotensin antibodies; Angiotensin ELISA Kits; Angiotensin Duos / Panels; Angiotensin recombinant proteins; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
Research Area	Cancer kit; Cell Biology and Cellular Response kit; Metabolism kit
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



ARG80960 Human Angiotensin 1-7 ELISA Kit standard curve image

ARG80960 Human Angiotensin 1-7 ELISA Kit results of a typical standard run with optical density reading at 450 nm.