



Mouse Anti-Human Angiotensinogen monoclonal antibody, clone NN14 (CABT-ZB815)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	It reacts with Human Angiotensinogen
Target	AGT
Immunogen	Recombinant Human Angiotensinogen/SerpinA8 Protein
Isotype	IgG
Source/Host	Mouse
Species Reactivity	Human
Clone	NN14
Purification	Protein A purified
Conjugate	Unconjugated
Applications	ELISA(cap) This antibody will detect Angiotensinogen in antibody pair set. [ABPR-ZB396]
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human Angiotensinogen / SerpinA8. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	Purified, Liquid
Concentration	Lot specific

Size	50 μ L, 100 μ L, 200 μ L, 1 mL
Buffer	PBS
Preservative	None
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction	Angiotensinogen, also known as AGT and SerpinA8, is a member of the serpin family. It is an α -2-globulin that is produced constitutively and released into the circulation mainly by the liver. Angiotensinogen is a essential component of the renin-angiotensin system (RAS) and a potent regulator of blood pressure. Angiotensinogen can be schematically considered to consist of a combination of an angiotensin I (Ang I) function, located at the N-terminal end, and the presence of a serpin (serine protease inhibitor) structure at the opposite end. Angiotensinogen is cleaved into three chains: Angiotensin-1 (Ang I), Angiotensin-2 (Ang II), and Angiotensin-3 (Ang III). 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 1-7 is cleaved from angiotensin-2 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. Defects in AGT are associated with susceptibility to essential hypertension and renal tubular dysgenesis (RTD). Several serpins (antithrombin, maspin, pigment epithelial-derived factor, and kallistatin) have been recently shown to exert an antiangiogenic activity, suggesting a common mechanism of endothelial cell proliferation and migration. Angiotensinogen/AGT and its renin-cleaved product, des(Ang I)AGT, are also angiogenesis inhibitors, both in vitro and in vivo at concentrations within the range of those observed in plasma. The Angiotensinogen products, that is angiotensin II and possibly angiotensin II-related products, have been found to act locally in modulating adipose tissue growth in an autocrine/paracrine manner. The transient or chronic overexpression of angiotensinogen in adipose tissue favors lipogenesis in adipocytes and leads to a 'vicious' circle whereby adipose tissue development is further increased.
Keywords	AGT; angiotensinogen (serpin peptidase inhibitor, clade A, member 8); ANHU; SERPINA8

GENE INFORMATION

Synonyms	AGT; angiotensinogen (serpin peptidase inhibitor, clade A, member 8); ANHU; SERPINA8; angiotensinogen; serpin A8; angiotensin I; angiotensin II; pre-angiotensinogen; alpha-1
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antiproteinase, antitrypsin; serine (or cysteine) proteinase inhibitor

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