

# Mouse Anti-Angiotensinogen antibody

## SL0045M

Product Name:	Angiotensinogen
Chinese Name:	血管紧张素原抗体
Alias:	Angiotenogen; AT; ANGT HUMAN; Serpin A8.
Organism Species:	Mouse
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat,
Applications:	IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair)
	not yet tested in other applications.
	optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	49kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Angiotensinogen:51-110/477
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	Angiotensinogen 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.

#### **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.

#### Subunit:

During pregnancy, exists as a disulfide-linked 2:2 heterotetramer with the proform of PRG2 and as a complex (probably a 2:2:2 heterohexamer) with pro-PRG2 and C3dg.

### **Subcellular Location:**

Secreted.

## Tissue Specificity:

Expressed by the liver and secreted in plasma.

#### **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).

### Similarity:

Belongs to the serpin family.

#### **SWISS:**

P01019

#### Gene ID:

183

## Database links:

Entrez Gene: 183Human

Entrez Gene: 11606Mouse

Entrez Gene: 24179Rat

Omim: 106150Human

SwissProt: P01019Human

SwissProt: P11859Mouse

SwissProt: P01015Rat

Unigene: 19383Human

Unigene: 301626 Mouse

Unigene: 6319Rat

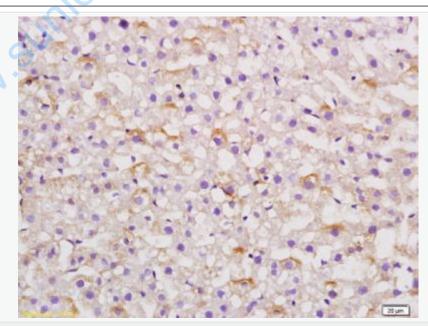
## **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

血管紧张素原(Angiotenogen,

AT)是一种大分子glycoprotein和 $\alpha$ 2球蛋白广泛分布于血液循环、淋巴、 版、 肾脏等组织。

#### | Picture:



Tissue/cell: rat liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-AGT Polyclonal Antibody, Unconjugated(SL0045M) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0024) and DAB(C-0010) staining www.sunlondbiotech.cot