Revision 1

Store at -20C

#79299

# Angiotensinogen Antibody

Cell Signaling TECHNOLOGY®

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W, IP | H M | Endogenous | 55, 70 | Rabbit | #P01019 | 183 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:50 |

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

Angiotensinogen Antibody recognizes endogenous levels of total angiotensinogen protein.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of mouse angiotensinogen protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

Angiotensinogen (AGT) is the primary precursor of angiotensins, peptide hormones that play a central role in the renin-angiotensin system (RAS) (1-3). AGT is a secreted protein synthesized primarily by the liver and secreted into circulation. Upon binding to renin, the amino terminal fragment of AGT is cleaved and released as a decapeptide hormone termed angiotensin 1 (Ang I). Ang I is subsequently processed by angiotensin converting enzyme (ACE) to generate angiotensin II (Ang II), which acts on AT1 and AT2 receptors in the central nervous system to increase production of anti-diuretic hormone (ADH), while promoting vasoconstriction in the peripheral circulation (4). Aberrant upregulation of Ang II has been associated with numerous clinical conditions, including hypertension, atherosclerosis, myocardial hypertrophy, and obesity (5-7). Alternative cleavage products of Ang I (e.g., Ang 1-7) can also be generated by ACE2 cleavage, some of which display biological functions that are distinct from Ang II (8). Treatments that target the RAS (e.g., ACE inhibitors) are consequently of significant importance in the treatment of hypertensive and hypertensive-related disorders(5-8).

## Background References

1. Lu, H. et al. (2016) *Hypertens Res* 39, 492-500.
2. Sparks, M.A. et al. (2014) *Compr Physiol* 4, 1201-28.
3. Kumar, R. et al. (2012) *Clin Sci (Lond)* 123, 273-84.
4. de Kloet, A.D. et al. (2015) *Am J Physiol Regul Integr Comp Physiol* 309, R444-58.
5. Vajapey, R. et al. (2014) *Front Physiol* 5, 439.
6. Wu, C. et al. (2011) *N Am J Med Sci (Boston)* 4, 183-190.
7. Putnam, K. et al. (2012) *Am J Physiol Heart Circ Physiol* 302, H1219-30.
8. Padda, R.S. et al. (2015) *J Diabetes Metab* 6.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human **M:** Mouse

## Trademarks and Patents



## Limited Uses

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