

# Anti-Renin (IN-2)

# CATALOG NO.: 54373

#### BACKGROUND:

Renin is an aspartyl protease that cleaves angiotensinogen  $\alpha$ -glycoprotein to form the decapeptide angiotensin I (ANG I) (1,2). ANG I is converted into ANG II that induces various endocrine effects including regulation of blood pressure in mammals (1-3). Thus, rennin is the rate-limiting step in rennin-angiotensin system (RAS) and its expression is tightly regulated. Tigerstedt and Bergmann first identified renin in 1898 and its secretion was attributed to kidney only (2). However, recent studies demonstrate that heart, brain, mast cells and other tissues and cells are capable of local renin production (1-3). In addition, mice with mutant renin genes were found to have low arterial blood pressure, reduced glomerular filtration rate, and low aldosterone levels (4).

## SOURCE

Rabbit anti-Renin (IN-2) polyclonal antibody was raised against a synthetic peptide corresponding to the internal sequence of human Renin. The species reactivity includes human, mouse, and rat, while others are not known.

# REACTIVITY

This epitope-affinity purified rabbit polyclonal antibody reacts specifically with Renin. The antibody was evaluated by western blot and ELISA. By western blot, an immunoreactive band around 39 kDa was detected from recombinant human renin protein.

#### **APPLICATION:**

The following concentration ranges are recommended starting points for this product.

| Western blot:                 | 0.5-2 μg/ml                                    |
|-------------------------------|--|
| IP*:                          | 2-5 $\mu$ g/extract from 10 <sup>7</sup> Cells |
| IHC*:                         | 2-5 μg/ml                                      |
| (*Recommended but not tested) |  |



This product is for in vitro Research Only.

### STORAGE:

This antibody is supplied as an epitope-affinity purified rabbit IgG, 50  $\mu$ g in 250  $\mu$ I (0.2 mg/mI) of 1X PBS (pH7.4) containing 0.05% sodium azide. Store at 4°C stable for one year. Avoid repeated freeze thaw cycles.

#### **REFERENCES:**

- 1. Liu X et al. (2006) Endocrinology 147(12): 6011-6018
- 2. Paul M et al. (2006) Physiol. Review 86: 747-803
- 3. Silver R et al. (2004) PNAS 101(37): 13607-13612
- 4. Chen L et al. (2007) Am. J. Physiol Renal Physiol 292: F27-F37