



## Renin Inhibitor Screening Assay Kit

### Product Information

#### Cat.No.

Kit-0766

#### Product Overview

Renin Inhibitor Screening Assay Kit provides a method for screening human renin inhibitors.

#### Description

Renin is an aspartyl protease of approximately 40 kDa. It is released in an active form from the renal juxtaglomerular cells in response to physiologic factors, including sodium depletion, decreased blood volume and blood pressure, and  $\beta$ -adrenergic stimulation. Renin converts angiotensinogen into angiotensin I. Angiotensin converting enzyme (ACE), a monomeric zinc metalloenzyme found in the vascular endothelium, then converts this pro-hormone to angiotensin II, the final active messenger in the renin-angiotensin system (RAS) pathway.<sup>2,3</sup> Angiotensin II inhibits renin secretion by acting directly on the juxtaglomerular cells. Angiotensin II has a number of physiological effects, most importantly as a powerful vasoconstrictor, increasing blood pressure by altering peripheral vascular resistance. Since angiotensinogen is the only known substrate for renin and cleavage of angiotensinogen by renin is the rate determining step in the RAS pathway, it is of general consensus that inhibition of renin would be an attractive strategy for the control of hypertension. Furthermore, renin inhibitors would prevent the formation of angiotensin I and angiotensin II, and, therefore, may act differently from angiotensin receptor blockers and ACE inhibitors, which increase angiotensin I levels but do not block ACE-independent angiotensin II production.

#### Usage

For research use only (RUO)

#### Storage

This kit will perform as specified if stored as directed at -80°C and used before the expiration date indicated on the outside of the box.

#### Kit Components



CREATIVE **BIOMART**<sup>®</sup>  
Assay Kit

## Renin Inhibitor Screening Assay Kit

Renin Assay Buffer (10X) 1 vial  
Renin (human recombinant) Assay Reagent 1 vial  
Renin Substrate 1 vial  
96-Well Plate (black) 1 plate  
96-Well Plate Cover Sheet 1 cover

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