## Recombinant Mouse REN1/Renin-1 Protein (His Tag)

## Catalog Number: PKSM041281

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description			
Species	Mouse		
Source	HEK293 Cells-derived Mouse REN1/Renin-1 protein Leu22-Arg402, with an C-terminal		
	His		
Calculated MW	43.5 kDa		
Observed MW	41-60 kDa		
Accession	P06281		
Bio-activity	Not validated for activity		
Properties			
Purity	>95 % as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.		
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of		
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.		
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants		
	before lyophilization.		
	Please refer to the specific buffer information in the printed manual.		
Reconstitution	Please refer to the printed manual for detailed information.		

Data	

kDa	MK	R
120 90 60		-
40	-	
30	-	
20	-	
14		

## Background

Mouse Renin, also known as Renin-1, is a member of the peptidase A1 amily. Renin is synthesized by the juxtaglomerular cells of the kidney in response to decreased blood pressure and sodium concentration. It cleaves angiotensinogen to generate angiotensin I, which can be further converted by angiotensin converting enzyme (ACE) to angiotensin II. Angiotensin II is the active molecule of the reninangiotensin system that acts by binding to angiotensin receptors type 1 and 2 (AT1 and AT2), and has direct pathophysiological effects on the heart and peripheral vasculature. After secretion, inactive prorenin can be proteolytically activated by trypsin, cathepsin B, or other proteinases.

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