

Active Recombinant Rat Ren, His-tagged

Cat. No. Ren-16R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Ren(amino acids 65 – 402 (end)), fused with C-terminal HIS tag, was expressed in a HEK293 cell expression system.
Species	Rat
Source	HEK293
Description	Renin, also known as an angiotensinogenase, is an enzyme that participates in the body's renin-angiotensin system (RAS)—also known as the renin-angiotensin-aldosterone axis—that mediates extracellular volume (i.e., that of the blood plasma, lymph and interstitial fluid), and arterial vasoconstriction. Thus, it regulates the body's mean arterial blood pressure. Renin is often improperly referred to as a hormone although it has no peripheral receptors and rather has an enzymatic activity with which it hydrolyses angiotensinogen to angiotensin I.
Form	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, and 20% Glycerol.
Bio-activity	The assay was performed following the renin assay kit. Enzymatic reactions were conducted at 37°C for 60 minutes in a 100 µl mixture containing assay buffer, 2.5 µM 5-FAM/QXL™ 520 FRET Peptide, and rat Renin enzyme. Fluorescence intensity was measured at an excitation of 490 nm and an emission of 520 nm using a Tecan Infinite M1000 microplate reader.
Molecular Mass	38.5 kDa

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Purity	≥ 90%
Applications	Useful for the study of enzymeRat renin gel kinetics, screening inhibitors, and selectivity profiling.
Stability	>6 months at –80°C
GENE INFORMATION	
Gene Name	Ren renin [Rattus norvegicus (Norway rat)]
Official Symbol	Ren
Synonyms	Ren; Ren1; RENAA; RATRENAA; renin; angiotensinogenase; renin 1 structural; NP_036774.4; EC 3.4.23.15
Gene ID	24715
mRNA Refseq	NM_012642
Protein Refseq	NP_036774
UniProt ID	P08424
Chromosome Location	13q13
Pathway	ACE Inhibitor Pathway; Metabolism of Angiotensinogen to Angiotensins; Peptide hormone metabolism
Function	aspartic-type endopeptidase activity; endopeptidase activity; insulin-like growth factor receptor binding

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