

Active Recombinant Human REN Protein

Cat. No. REN-084H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active recombinant full length renin mature protein (67-406) without was expressed in HEK293 cells.
Species	Human
Source	HEK293
ProteinLength	67-406
Description	This gene encodes renin, an aspartic protease that is secreted by the kidneys. Renin is a part of the renin-angiotensin-aldosterone system involved in regulation of blood pressure, and electrolyte balance. This enzyme catalyzes the first step in the activation pathway of angiotensinogen by cleaving angiotensinogen to form angiotensin I, which is then converted to angiotensin II by angiotensin I converting enzyme. This cascade can result in aldosterone release, narrowing of blood vessels, and increase in blood pressure as angiotension II is a vasoconstrictive peptide. Transcript variants that encode different protein isoforms and that arise from alternative splicing and the use of alternative promoters have been described, but their full-length nature has not been determined. Mutations in this gene have been shown to cause hyperuricemic nephropathy familial juvenile 2, familial hyperproreninemia, and renal tubular dysgenesis.
Molecular Mass	40 kDa
Purity	≥85% estimated by SDS-PAGE

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Unit Definition

One unit is defined as the amount of enzyme that will liberate 1.0 nmol of EDANS per minute at 37 centigrade in 50 mM Tris-HCl, pH8.0, containing 100 nM NaCl, and 10μ M of the fluorescent peptide Arg-Glu(EDANS)-Ile-His-Pro-Phe-His-Leu-Val-Ile-His-Thr-Lys(dabcyl)-Arg. Renin is diluted with 50mM Tris-HCl, pH8.0, containing 100nM NaCl before assaying in a final assay volume of 205μL with a fluorescence microplate reader using an excitation wave length of 340 nm and emission wave length of 485 nm.

Stability ≥ 1 year

Storage At -80 centigrade.

Storage Buffer 50 mM Tris, pH 8.0, with 150 mM NaCl and 5% glycerol

GENE INFORMATION

Gene Name REN renin [Homo sapiens (human)]

Official Symbol REN

Synonyms REN; renin; RTD; HNFJ2; ADTKD4; renin; angiotensin-forming enzyme; angiotensinogenase; renin precursor, renal; EC 3.4.23.15

Gene ID 5972

mRNA Refseq NM_000537

Protein Refseq NP_000528

MIM 179820

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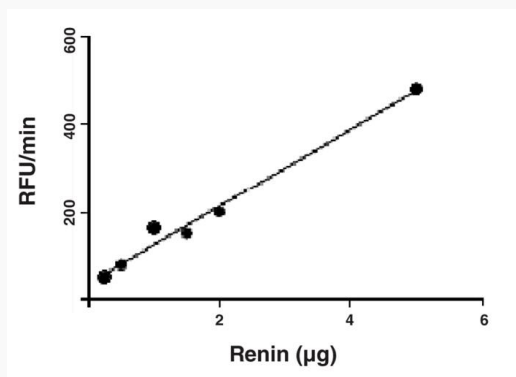
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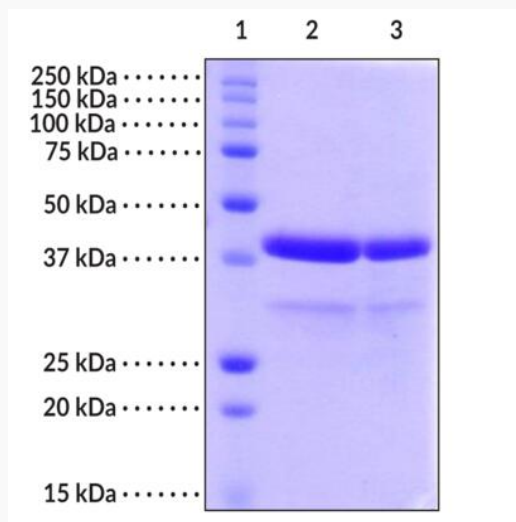
UniProt ID

P00797

Renin Activity



SDS-PAGE analysis
of Renin



Lane 1: MW Markers

Lane 2: Renin (4 µg)

Lane 3: Renin (2 µg)

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