

Active Recombinant Human REN Protein, His-tagged

Cat. No. REN-1208H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human REN Protein(25-406 aa), fused with N-terminal His tag, was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	25-406 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 5% Trehalose.
Bio-activity	Renin is an enzyme that plays a crucial role in the regulation of blood pressure and electrolyte balance by activating the renin-angiotensin-aldosterone system (RAAS). It is secreted by the kidneys in response to low blood pressure or low sodium levels. The activity of recombinant human REN is measured by its ability to cleave a fluorogenic peptide substrate Arg-Glu(EDANS)-Ile-His-Pro-Phe-His-Pro-Phe-His-Leu-Val-Ile-His-Thr-Lys(dabcyl)-Arg in the assay buffer 50 mM Sodium Acetate, 150 mM NaCl, 2 mM EDTA, pH 5.0. Recombinant human REN was diluted to 200ug/ml in the activation buffer 5 mM Tris, 15 mM NaCl, 1 mM CaCl₂, 0.005% Brij-35, pH 7.5, then activated by Trypsin in a final concentration of 4ug/ml incubated at 37°C for 1 hours. Stop activation with PMSF at 1 mM and incubate at room temperature for 30 min. The activated rhREN is diluted to different concentrations in assay buffer. Loading into a black well plate 50 μ rhREN and start the reaction by adding 50 μ of 20 μM substrate, with a substrate blank containing 50 μ assay buffer, 50 μ substrate, and no rhREN. Then read at exc

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itation and emission wavelengths of 350 nm and 490 nm, respectively, in kinetic mode for 5 minutes. The specific activity of rhREN is >13 pmol/min/g.

Molecular Mass	43.9kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	>97%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 month.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	REN renin [Homo sapiens]
Official Symbol	REN
Synonyms	REN; renin; angiotensinogenase; renin precursor, renal; angiotensin-forming enzyme; HNFJ2; FLJ10761;
Gene ID	5972
mRNA Refseq	NM_000537
Protein Refseq	NP_000528
MIM	179820

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UniProt ID	P00797
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