

## Renin Protein, Human (HEK293, His)

Cat. No.:	HY-P71052
Synonyms:	Renin; Angiotensinogenase; REN
Species:	Human
Source:	HEK293
Accession:	P00797-1 (L24-R406)
Gene ID:	5972
Molecular Weight:	43-50 kDa

### PROPERTIES

AA Sequence	<pre> L P T D T T T F K R   I F L K R M P S I R   E S L K E R G V D M   A R L G P E W S Q P M K R L T L G N T T   S S V I L T N Y M D   T Q Y Y G E I G I G   T P P Q T F K V V F D T G S S N V W V P   S S K C S R L Y T A   C V Y H K L F D A S   D S S S Y K H N G T E L T L R Y S T G T   V S G F L S Q D I I   T V G G I T V T Q M   F G E V T E M P A L P F M L A E F D G V   V G M G F I E Q A I   G R V T P I F D N I   I S Q G V L K E D V F S F Y Y N R D S E   N S Q S L G G Q I V   L G G S D P Q H Y E   G N F H Y I N L I K T G V W Q I Q M K G   V S V G S S T L L C   E D G C L A L V D T   G A S Y I S G S T S S I E K L M E A L G   A K K R L F D Y V V   K C N E G P T L P D   I S F H L G G K E Y T L T S A D Y V F Q   E S Y S S K K L C T   L A I H A M D I P P   P T G P T W A L G A T F I R K F Y T E F   D R R N N R I G F A   L A R </pre>
Biological Activity	Measured by its ability to cleave substrate Arg-Glu(EDANS)-Ile-His-Pro-Phe-His-Pro-Phe-His-Leu-Val-Ile-His-Thr-Lys(dabcyI)-Arg(HY-P5123A) that incubate at 37 °C for 1 hour. The specific activity is $\geq 29.21$ pmol/min/ $\mu$ g.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of 20 mM PB, 8% Sucrose, 5% Mannitol, 0.05% Tween80, 100 mM NaCl, pH 7.4 or PBS, pH 7.4 or PBS, pH 7.4, 5% trehalose, 5% mannitol and 0.01% Tween80.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

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## DESCRIPTION

### Background

Renin, a specialized endopeptidase, serves a singular function in the conversion of angiotensinogen to angiotensin I within the plasma. This enzymatic activity sets off a series of reactions leading to an increase in blood pressure and enhanced sodium retention by the kidneys. Renin's precision in initiating the angiotensin pathway underscores its pivotal role in regulating blood pressure and electrolyte balance within the body.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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