Recombinant Human Prorenin, His-tagged

Cat. No. REN -16H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinantly produced in HEK cell culture and purified by chelated metal affinity chromatography. Contains a 8X-Histidine tag at C terminus for purification. Fully activatable to renin by catalytic amounts of trypsin.
Species	Human
Source	HEK293
Description	Prorenin is a glycosylated aspartic protease that consists of 2 homologous lobes and is the precursor of renin. Prorenin exhibits a low level of enzymatic activity relative to renin which is generated from prorenin by proteolytic cleavage of the first ~43 amino acids at the N-terminus. This so called prosegment appears to block the full enzymatic potential of the active site . Renin activates the renin-angiotensin system by cleaving angiotensinogen, produced by the liver, to yield angiotensin I, which is further converted into angiotensin II by ACE, the angiotensin-converting enzyme primarily within the capillaries of the lungs. It has been reported that the levels of circulating prorenin (but not renin) are increased in diabetic subjects.
Form	Frozen liquid
Molecular Mass	43,725
Purity	>95% by SDS-PAGE analysis
Usage	For in vitro laboratory use only

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Notes	Optimal experimental conditions and working dilutions must be determined by the end user. Sample concentration and volume are for example purposes only and do not necessarily represent the product that will be received. Please contact us for a current lot-specific product datasheet.
Storage	-70°C
Concentration	1.0 mg/ml
Storage Buffer	50mM Tris; pH 8.0
Shipping	Dry ice

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
UniProt ID	P00797

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Chromosome Location	1q32
Pathway	ACE Inhibitor Pathway, organism-specific biosystem; Renin-angiotensin system, organism-specific biosystem; Renin-angiotensin system, conserved biosystem;
Function	aspartic-type endopeptidase activity; insulin-like growth factor receptor binding; peptidase activity; receptor binding;

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