

# Recombinant mouse Renin protein

Catalog Number: ATGP3224

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

22-402aa

### UniProt No.

P06281

### NCBI Accession No.

NP\_112469

### Alternative Names

Ren1, Ren, Ren-A, Ren1c, Ren1d, Rn-1, Rnr, Angiotensinogenase, Kidney renin

## PRODUCT SPECIFICATION

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### Molecular Weight

42.5 kDa (387aa)

### Concentration

0.25mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

REN1, also known as Renin-1, is a member of the peptidase A1 family. It is synthesized by the juxtaglomerular cells of the kidney in response to decreased blood pressure and sodium concentration. Androgen and thyroid hormones influence levels of Renin-1 in mouse submandibular gland (SMG) primarily by regulating the amount of Renin-1 mRNA available for translation. This protein is to generate angiotensin I from angiotensinogen in the

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plasma, initiating a cascade of reactions that produce an elevation of blood pressure and increased sodium retention by the kidney. Also, REN1 was found to be co localized with the lysosomal marker, beta-glucuronidase, by double-fluorescent labeling. Recombinant mouse REN1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

LPTRTATFER IPLKKMPSVR EILEERGVDL TRLSAEWGVF TKRPSLTNLT SPVVLTYNLT TQYYGEIGIG TPPQTFKIVF  
DTGSANLWVP STKCSRLYLA CGIHSLYESS DSSSYMENG S DFTIHYGSGR VKGFLSQDSV TVGGITVTQT FGEVTEPLI  
PFMLAKFDGV LGMGFPAQAV GGVTPVFDHI LSQGVLKEEV FSVYYNRGSH LLGGEVVLGG SDPQHYQGNF HYVSISKTDS  
WQITMKGVSV GSSTLLCEEG CAVVVDTGSS FISAPTSSLK LIMQALGAKE KRIEYVNC SQVPTLPDIS FDLGGRAYTL  
SSTDYVLQYP NRRDKLCTLA LHAMDIPPT GPVWVLGATF IRKFYTEFDR HNNRIGFALA R<HHHHHH>

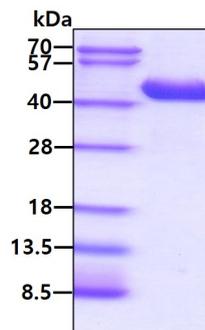
## General References

Ramkumar N., et al. (2013) Am. J. Hypertens. 26(8):965-972.

Bandulik S., et al. (2013) Endocrinology 154(8):2712-2722.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.