

Recombinant Mouse Ren1 Protein, His-tagged

Cat. No. Ren1-379M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse REN1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Mouse
Source	Insect Cells
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 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.
Form	Liquid. In Phosphate Buffered Saline (pH 7.4) containing 10% glycerol.
Molecular Mass	42.5kDa (387aa)40-57KDa (SDS-PAGE under reducing conditions.)
AA Sequence	LPTRTATFER IPLKKMPSVR EILEERGVD M TRLSAEWGVF TKRPSLTNLT SPVVLNTNYLN TQYYGEIGIG TPPQTFKVIF DTGSANLWVP STKCSRLYLA CGIHSLYESS DSSSYMENG S DFTIHYGSGR VKGFLSQDSV TVGGITVTQT FGEVTELPLI PFMLAKFDGV LGMGFPAQAV GGVTPVFDHI LSQGV LKEEV

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FSVYYNRGSH LLGGEVVLGG SDPQHYQGNF HYVSISKTDS WQITMKGVS
 GSSTLLCEEG CAVVVDTGSS FISAPTSSLK LIMQALGAKE KRIEYVVC
 SQVPTLPDIS FDLGGRAYTL SSTDYVLQYP NRRDKLCTLA LHAMDIPPPT
 GPVWVLGATF IRKFYTEFDR HNNRIGFALA RHHHHHH

Endotoxin < 1.0 EU per 1 microgram of protein (determined by LAL method)

Purity >95% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.25mg/ml (determined by Absorbance at 280nm)

GENE INFORMATION

Gene Name [Ren1 renin 1 structural \[Mus musculus \]](#)

Official Symbol [Ren1](#)

Synonyms REN1; renin 1 structural; renin-1; renin b; kidney renin; aspartyl-protease; angiotensinogenase; Ren; Rnr; Rn-1; Ren-1; Ren-A; Ren1c; Ren1d; D19352;

Gene ID [19701](#)

mRNA Refseq [NM_031192](#)

Protein Refseq [NP_112469](#)

MIM

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UniProt ID	
Pathway	ACE Inhibitor Pathway, organism-specific biosystem; Renin-angiotensin system, organism-specific biosystem; Renin-angiotensin system, conserved biosystem;
Function	aspartic-type endopeptidase activity; endopeptidase activity; endopeptidase activity; hydrolase activity; insulin-like growth factor receptor binding; peptidase activity; receptor binding;

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