

Nucleotide sequence of rat renin cDNA

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We have isolated cDNA clones for renin from a Sprague-Dawley rat kidney cDNA library containing a large amount of renin poly(A)\*RNA induced by treatment of captopril and low sodium diet as described(1). A recombinant  $\lambda$ ongC library was screened with the mouse cDNA as a probe (2). A nucleotide sequence of the isolated cDNA was completely consistent with that deduced from the rat renin gene (3), and almost with that of the previous report(4), except for the followings: seven nucleotides in the coding and 3'-noncoding region including a polyadenylation site. Three of these seven nucleotide changes did alter two of the deduced amino acid sequences (indicated by boxes).

ACACGGCTCTCAGAAAGCCTTGGCTGGACCAG

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33 ATG GGC GGG AGG AGG ATG CCT CTC TGG GCA CTC TTG TTG CTC TGG ACC TCT TGT AGC TTC AGT CTC CCG ACA GAC
   M G G R R R M P L W A L L L W T S C S F S L P T D
108 ACA GCC AGC TTT GGA CGA ATC TTG CTC AAG AAA ATG CCC TCG GTC CGG GAA ATC CTG GAG GAG CGG GGA GTA GAC
   T A S F G R I L L K K M P S V R E I L E E R G V D
183 ATG ACC AGG ATC AGT GCT GAA TGG GGT GAA TTC ATC AAG AAG TCT TCC TTT ACC AAT GTT ACC TCC CCC GTG GTC
   M T R I S A E W G E F I K R S S F T N V T S P V V
258 CTC ACC AAC TAC TTG GAT ACC CAG TAC TAT GGT GAG ATC GGC ATT GGT ACC CCA TCC CAG ACC TTC AAA GTC ATC
   L T N Y L D T Q Y Y G E I G I G T P S Q T F L V I
333 TTT GAC ACG GGT TCA GCC AAC CTC TGG GTG CCC TCC ACC AAG TGT GGT CCC CTC TAC ACT GCC TGT GAG ATT CAC
   F D T G S A N L W V P S T K C G P L Y T A C E I H
408 AAC CTC TAT GAC TCC TCG GAA TCC TCT AGC TAC ATG GAG AAT GGG ACT GAA TTC ACC ATC CAC TAT GGA TCA GGG
   N L Y D S S E S S Y M E N G T E F T I H Y G S G
483 AAG GTC AAA GGT TTC CTC AGC CAA GAT GTG GTA ACT GTG GGT GGA ATC ATT GTG ACA CAG ACC TTT GGA GAG GTC
   K V K G F F L S Q D V V T V G G I I V T Q T F G E V
558 ACC GAG CTG CCC CTG ATA CCC TTC ATG CTG GCC AAG TTT GAC GGG GTT CTG GGC ATG GGC TTC CCT GCT CAG GCT
   T E L P L I P F M L A K F D G V L G W G F P A Q A
633 GTT GAT GGA GTC ACT CCT GTC TTC GAC CAC ATT CTC TCC CAG GAG GTG CTA AAG GAG GAA GTG TTT TCT GTC TAC
   D G V I P V F D H I L S G I V L K E V F S G N
708 TAC AGC AGG GAG TCC CAC CTG CTG GGG GGC GAA GTG GTG CTG GGA GGC AGT GAC CCT CAA CAT TAC CAG GGC AAC
   Y S R E S H L L G G E V V L G G S D P CT H Y Q G N
783 TTT CAC TAC GTG AGC ATC AGC AAG GCC GGC TCC TGG CAG ATC ACC ATG AAG GGG GTC TCT GTG GGG CCT GCC ACC
   F H Y V S I S K A G S W Q I T M K G V S V G P A T
858 TTG TTG TGT GAG GAG GGC TGT ATG GCA GTG GTG GAC ACT GGC ACA TCC TAT ATT TCG GGC CCT ACC AGC TCC CTG
   L L C E E G C M A V V D T G T S Y I S G P T S S L
933 CAG TTG ATC ATG CAA GGC CTG GGA GTC AAA GAG AAG AGA GCA AAT AAT TAC TTT GTG AAC GTG AGC CAG GTA CCC
   Q L I M Q A L L G V K E K R A N N Y V V N C S Q V P
1008 ACC CTC CCC GAC ATC TCC TTC TAC CTG GGA GGC AGG ACC TAC ACT CTC AGC AAC ATG GAC TAT GTG CAA AAG AAT
   T L P D I S F Y L G G R T Y T L S N M D Y V Q K N
1083 CCC TTC AGG AAC GAT GAC CTG TGC ATA CTG GCT CTC CAA GGC CTG GAC ATC CCA CCA CCC ACT GGG CCT GTC TGG
   P F R N D L C I L A L Q G L D I P P P T G P V W
1158 GTC CTC GGT GCC ACC TTC ATC CGC AAG TTC TAT ACA GAG TTC GAC CGG CAT AAC AAT CGC ATC GGG TTC GCC TTC
   V L G A T F I R K F Y T E F D R H N N R I G F A L
1233 GCC CGC TAA GCTCTCTGTCAACCCAGTGAACCTAGTTTTAGGCCAAGCCAAAGCTGGCGTCTCTGGGGCCACTCTGTCTGGCTCTGCCCAACA
   A R ***
1329 TAGGGACACTGGACACAGAGCCCTTGATGAGTGCTTGCCTCTGGCTGGCTGCACTACCCTTCCTGCTTTGAGGAAAACAGAAATAGACTGCAT
1428 GTTTACK(A)17
    
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