

Nucleotide sequence of a cDNA coding for mouse *Ren1* preprorenin

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In mouse, there are two types of renin (EC 3. 4. 23. 15): one is the Ren1 renin which is synthesized mainly in the kidney, the other is the Ren2 renin which is synthesized exclusively in the submandibular glands. We have cloned a cDNA for mouse Ren1 preprorenin from a λ gt10 library prepared from Balb/c mouse kidney poly(A) RNA using the mouse Ren2 preprorenin cDNA (1) as a probe. The mRNA sequence deduced from the cDNA comprises 14 nucleotides of the 5' untranslated region, an open reading frame of 1206 nucleotides encoding a 402 amino-acid preprorenin and the 3' untranslated sequence of 182 nucleotides. The preprorenin is composed of the 21 amino-acid signal peptide, the 43 amino-acid prosegment and the 338 amino-acid renin. These sequences are identical to those deduced from the Ren1 preprorenin gene (2).

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1 CT TGG CTG AAC CAG ATG GAC AGA AGG AGG ATG CCT CTC TGG GCA CTC TTG TTG CTC TGG AGT OCT TGC ACC TTC AGT CTC CCA ACA GGC
      M D R R R M P L W A L L L L L W S P C T F S L P T R
90 ACC GCT ACC TTT GAA OGA ATC CCG CTC AAG AAA ATG CCT TCT CTC CCG GAA ATC CTG GAG GAG GGG GGA CTG GAC ATG ACC AGC CTC AGT
      T A T F E R I P L K K K H P S V R E I L E E R G V D N T R L S
180 GCT GAA TGG GGC GTA TTC ACA AAG AGG OCT TCC TTG ACC AAT CTT ACC TCC CCC GTG GTC CTC ACC AAC TAC CTG AAT ACC CAG TAC TAC
      A E W G V F T K R P S L T N L T S P V V L T N Y L N T Q Y Y
270 GGC GAG ATT GGC ATC GGT ACC CCA CCC CAG ACC TTC AAA GTC ATC TTT GAC ACG GGT TCA GCC AAC CTC TGG GTG CCC TCC ACC AAG TGC
      G E I G I G T P P Q T F K V I F D T G S A N L W V P S T K C
360 AGC CCG CTC TAC CTT GCT TGT GGG ATT CAG AGC CTC TAT GAG TCC TCT GAC TCC TCC AGC TAC ATG GAG AAC GGG TCC GAC TTC ACC ATC
      S R L V L A C G I H S L Y B S S D S S S Y H E A N G S D F T I
450 CAC TAC GGA TCA GGG AGA GTC AAA GGT TTC CTC AGC CAG GAC TGG GTG ACT GTG GGT GGA ATC ACT GTG ACA CAG ACC TTT GGA GAG GTC
      H Y G S G R V K G F L S Q D S V T V G G I T V T Q T F G E V
540 ACC GAG CTG CCC CTG ATC CCT TTC ATG CTG GCG AAG TTT GAC GGT GTT CTA GGC ATG GGC TTT CCC GCT CAG GCC GTT GGC GGG GTT ACC
      T E L P L I P F H L A K F D G V L G H G F P A Q A V G G V T
630 CCT GTC TTT GAC CAC ATT CTC TCC CAG GGG GTG CTA AAG GAG GAA GTG TTC TCT GTC TAC TAC AAC AGG GGT TCC CAC CTG CTG GGG GGC
      P V F D H I L S Q G V L K E E V F S V Y N R G S H L L G G G
720 GAG GTG GTG CTA GGA GGT AGC GAC CCG CAG CAT TAT CAA GCG AAT TTT CAC TAT GTG AGC ATC AGC AAG ACT GAC TCC TGG CAG ATC AGT
      E V V L G G S D Q Q H Y Q G N F H Y V S I S K T D S W Q I T
810 ATG AAG GGG GTG TCT CTG GGG TCT TCC ACC CTG CTA TGT GAA GAA GGC TGT GCG GTA GTG GTG GAC ACT GGT TCA TCC TTT ATC TGG GCT
      H K G V S V G S S T L L C B E G C A V V V D T G G S S F I S A
900 CCT ACG AGC TCC CTG AAG TTG ATC ATG CAA GCC CTG GGA GCC AAG GAG AAG AGA ATA GAA GAA TAT GTT GTC AAC TGT AGC CAG GTC CCC
      P T S S L K L I N Q A L G A K E K R I B E Y V V N C S Q V P
990 ACC CTC CCC GAC ATT TCC TTT GAC CTG GGA GGC AGG GCC TAC ACA CTC AGC AGT ACG GAC TAC CTG CTA CAG TAT CCC AAC AGC AGA GAC
      T L P D I S F D L G G R A Y T L S S T D Y V L Q Y P N R R D
1080 AAG CTG TGC ACA CTG GGT CTC CAT GCC ATG GAC ATC CCA CCC ACT GGG CCT GTC TGG GTC CCG GGT GCC ACC TTC ATC GGC AAG TTC
      K L C T L A L H A M D I P P P T G P V W V L G A T F I R K F
1170 TAT ACA GAG TTT GAT GCG CAT AAC AAT GGC ATT GGA TTC GCC TTG GCC GGC TAA GGC CCT CTG CCA CCC AGT AAC CCT AGG CCA AGC CAA
      Y T E F D R H N R I G F A L A R ***
1260 GCT GGC AGT OCT GGG GGC CAT TTT GTC TGG CTT TGT CCC CAA CAT AGG GAC ACT GGA CAC AGA GAC CCT AAC GAG TGT TTC CCC CTT CAC
1350 CTG CAC TCA CCC TTC CCT GCT TTA AGG AAA AAT GGA ATA AAG ATT TCA TGT TT
    
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