Structural organization of the rat acyl-peptide hydrolase gene

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The entire nucleotide sequence of the rat acyl-peptide hydrolase gene including its 5' and 3' flanking region is presented here. Previously, the isolation of the rat acyl-peptide hydrolase (1) and its cDNA (2) were reported. By sequential screening with the cDNA and a 5' cDNA fragment, two overlapping genomic clones (APHE5 and APHH6) were isolated from two Charon 4A rat genomic libraries. From these two clones, the complete DNA sequence of the rat acyl-peptide hydrolase gene was determined. The rat acyl-peptide hydrolase gene spans about 10 kb and consists of 23 exons (capital letters) and 22 introns. The sizes of the exons range from 41 bp to 262 bp, and the introns range from 74 bp to 1104 bp in size. The transcriptional initiation site (position +1) was determined by primer extension. The putative "TATA box" and "CAAT box" sequences are boxed. Three GC repeats, potential Sp1 binding sites (3), are underlined. Two tandem type 2 Alu repeats are indicated by wavy underlines. The translational initiation site and polyadenylation signal were double underlined.

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 221  GAATGAATACTCAGAGTTTT CTCTCTGACCCCGCAGCTCA CAgtcggctgaagtccggtc ctacttctttcactcatccc
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