

## The nucleotide sequence of human transition protein 1 cDNA

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We screened a human testis cDNA library with an oligonucleotide of 81 mer prepared according to a part of the published nucleotide sequence of the rat transition protein TP 1(1). We have isolated a cDNA clone with the length of 441 bp containing the coding region of 162 bp for human transition protein 1. There is about 84% homology in the coding region of the sequence compared to rat. The insert contains the full 3'-noncoding region with 215 bp and the polyadenylation-signal 186 bp after the coding region. The 5'-noncoding region has a length of 58 bp. The human cDNA-clone encodes a polypeptide of 54 amino acids of which 7 are different to that of rat. These amino acids are underlined. Human transition protein 1 lacks cysteine, glutamine, glutamic acid, isoleucine, phenylalanine, and tryptophane.

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          5'  AGCAAGAGCCGATCTCCTCACAAAGGAGTCAAAGAGAGGTGGCAGCAAAAGAAAATACC
***          -50      -40      -30      -20      -10
ATG TCG ACC AGC CGC AAA TTA AAG AGI CAT GGC ATG AGG AGG AGC AAG AGC CGA
1   S  T  S  R  K  L  K  S  H  G  H  R  R  S  K  S  R
TCI CCT CAC AAG GGA GTC AAG AGA GGT GGC AGC AAA AGA AAA TAC CGT AAG GGC
   S  P  H  K  G  V  K  R  G  G  S  K  R  K  Y  R  K  G
AAC CTG AAA AGT AGG AAA CGG GGC GAT GAC GCC AAI CGC AAT TAC CGC TCC CAC
   N  L  K  S  R  K  R  G  D  D  A  N  R  M  Y  R  S  H
TTG TGA GCCCCCAGCGGCTCTGCCCTGGTGCCTTCACACAGCACCAAGCAGCAACAAGAACAGCAGAA
L   168                                190                                210                                230
GGGGAACCTGCCAAGGAGACCTGATGTTAGATCAAAGCCAGAGAGGAGCCTATGGAATGTGGATCAAAATGCC
          250                                270                                290
AGTTGTGACGAAATGAGGAATGTATATGTTGGCTGTTTTCCCAACATCTCAATAAAAATTTGAAAGCAA
          310                                330                                350                                370
AAAAAAAAAAAA 3'
          383

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References

1. Mohammad A. Heidarani and Stephen Kistler (1987) Gene 54, 281-284