Complete cDNA sequence encoding mitochondrial large ribosomal RNA of *Drosophila melanogaster*

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Here we present the full-length cDNA sequence of the mitochondrial large ribosomal RNA (lrRNA) of *Drosophila melanogaster*. The cDNA was synthesized from poly(A)$^+$ RNA extracted from cleavage embryos. A denatured 167-bp fragment from the 3'-end region of a cDNA (pDE20.6) complementary to the 3'-terminal 600 nucleotides of lrRNA (1) was used as a primer. The 5'-terminal nucleotide of the lrRNA was determined by the primer extension technique. The nucleotide 'G' is numbered as '1' in the sequence data. The complete cDNA sequence shows 96.8% homology with the lrRNA gene of *Drosophila yakuba* (2). The reported sequence of the 3'-terminal 886-bp of the lrRNA gene of *D. melanogaster* (3) matches almost completely (99.5%) with the corresponding part of the cDNA we have sequenced. We previously reported that sense RNA transcribed *in vitro* from the full-length cDNA is able to restore pole-cell-forming ability to the u.v.-sterilized embryos when it is injected into these embryos (1). This result suggests the possibility that the lrRNA, in addition to its function as a component of ribosome in mitochondria, is involved in the formation of pole cells, which are the progenitor cells of germ line in this animal.

REFERENCES

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   1 GTTAGTTTTTATTTATTAATTTTTATTATTTTTTAGAAAATTATTAGAAATAACTATAAATTTAAAGTTT
  71 TAGTATTGTTTAAAGAAAAAATAATTTTAATAATAGTTTATTAGTATTGTAAAAGAAAATTGAAATAGTT
 141 TGAAAAAATTTTATTTTAAAAGAAAATTTAATTTATTGTACCTTGTGTATCAGTGTTTATTAAATAAAAA
 211 ATAAATATTTATTTTTCTCGATTTTAAAAGAGTTAATATAATATTTAAGTTAATGTGATAAAATTATTTA
 281 TAATATTATATTAGAAATGAAATGTTATTCGTTTTTAAAGGTATCTAGTTTTTTAAGAAATAAATTTAAT
 351 TTAGAAATTATAAATTTACTTAATTATTTATTTAATTAATTAATTTATAATTTTAATGTTTTATGGGATA
 421 AGCTATAAAATAAATTTTTAAAAATATTAAATAGATTTAATAAATATATGCTTAGAATTAGCAATTATTA
 491 AAAAATGTGTTATAATTTATTTTATAAATTAAATTATTTATTAAATTTTAATTATTTATTAAAATGTTAG
 561 TTTTAATTATTAAAATTAAGTAATAATGATAAAATTAGTATATAATAATGTTAAAATTAATTTATATGAA
 631 AAGTTTAAATAAAGAATTCGGCAAAAATAATATTCGCCTGTTTAACAAAAACATGTCTTTTTGAATTATA
 701 TATAAAGTCTAACCTGCCCACTGAAAATTTTAAATGGCCGCAGTATTTTGACTGTGCAAAGGTTAGCATA
 771 ATCATTAGTCTTTTAATTGAAGGCTGGAATGAATGGTTGGACGAAATATTAACTGTTTCATTTAAAATTT
 841 TTATAGAATTTTATTTTTTAGTCAAAAAGCTAAAATTTATTTAAAAGACGAGAAGACCCTATAAATCTTT
 911 ATATTTTTTTTATTTTAATTATATAGATTAATTAAATTTTAATAAATAAAAATATTTTATTGGGGTGATA
 981 TTAAAATTTAAAAAACTTTTAATTTTTTAAAAACATAAATTTATGAATATTTGATCCATTAATAATGATT
1051 AAAAAATTAAGTTACTTTAGGGATAACAGCGTAATTTTTTTGGAGAGTTCATATCGATAAAAAAGATTGC
1121 GACCTCGATGTTGGATTAAGATATAATTTTGGGTGTAGCCGTTCAAATTTTAAGTCTGTTCGACTTTTAA
1191 ATTCTTACATGATCTGAGTTCAAACCGGTGTAAGCCAGGTTGGTTTCTATCTTTAAAAAATTATGATATT
1261 TTAGTACGAAAGGACCAAATATCAAAATAATTATATTTTTTATAAGAATATTATTAATATAAAA
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