

Nucleotide sequence of a cDNA from the putative ovarian tumor locus of *Drosophila melanogaster*

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A cDNA from the putative ovarian tumor (*otu*) locus of the *Drosophila melanogaster* X-chromosome was isolated from a Canton S ovary library using a genomic probe. The *otu* gene is essential for female fertility, and produces a variety of ovarian phenotypes when mutant (1). The cDNA corresponds to an abundant 3.2 kb message present in nurse cells and the developing oocyte (2,3). A 2433 b.p. open reading frame predicts a proline-rich protein of 811 amino acids starting from the ATG at position 155. This sequence corrects and extends to the 5' direction the sequence previously reported for *otu* (4).

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CTGAAAGGCTAGATCGGCCATTGCTTCAATTTCTCGTGTACCGGTGCTAGGTGCGGATGCCAGTGTATTTTTAATTG 80
TTAATTTAATTTGTTAACTATTTATAAAAATAGAATTTGTACAAACAGAAGACGAACAGCAGAACACCGAGTCGCCATGGAC 160
ATGCAAGTGCACCGCCCATTTACGTGACGACGCGCGGAGCCCGGATCCGTATGATCAGTATCGGAGAGCCGTGGACT 240
CTACCGTAAGCAGCCGCGCGGACCGCTCCAGTTTGTCCGTGTGATCGCGGACAGATGTACGACACCCAGATGCTGC 320
ACTACGAGATTCCGGTACGATGCGCTCCGCTTCATGACCCATAAACAGCAGCATCTTTGAGAAGGAAATTCCTGGCGATTT 400
GATAGTACATGCAGGACATGTCCAAGCCCAAGACATATGGAACCATGACAGAACTACGCGCTATGTCCTGCCTATATCG 480
CCGCAATGTTATCCTGTATGAGCCCTACAACATGGGCACCGCGTCGTTTTTAATCGTCGCTATGCCGAAAACCTCCGCTG 560
TCTTTCTTCAACAAATGAGAACTACTTTGATTCCGTTTATGACGTTGAATATATAGAAGAGCGCCATTTGTCAATCAATC 620
GCCTTTAAGTTGCTGTACCAGAAGCTTTCAAAATGCGCTGACGTATCCTTTGTGTGGAGATTATGTTGCATCCACACAC 720
CTTCAATTTGGGATCGCTCAATGTGGAGTTGATGACAGGGGTATATGGTTCGCATTCATTTGACCCGATGGACGAGTTT 800
TTAAGCTTGATCTGCCAGGGACACAAACTGCATCTGGAAAACATAAAGCTGTGCAATTTCCATACGCCAATGGAAAT 860
CAGAGCATTAATGCTCGAAAGGGAGCGCGCTGGAGATTA AAAACCAGGAGGAGCGAAAGGCATCCGGCAGCAGTGGCCA 960
CGAAACCAACGATCTGTGCCCCATGTGCCAAACCGATTGGAGTCCGTGTGCCGCGAGCTGCTAGATGATGGTATCTCTC 1040
CGTTTTCCCTACCAAGTGGCCAAAGTCCATGGACCCCTATATGTATCGTAATATAAGAATTTGATTGCTGGAACGATATGCCG 1120
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ACAAAATGACAGAACCCGACTCGGGAGCAGCGGGATTCG TGAAGAACCAGGCACAGAAGCAACACCGCCAGCAAGG 1520
CATCAAGGGTTACCGCCGACACTCGAGTTCAGCCAAAAC CAGGAGGTTTCGGGTTCCGGTGGCCCGCCACCCACTCAG 1600
TATATGAATTACGTCGCAATGATACCGAGTCGCTCGGGC ATTACCGCCACCTTGGCCGCTCATCTCCGATGGCTATTCG 1680
CGAGGAGTTTCCGTTCCCATTTTCAGGAACCCCGCATTC CACCGCCAACCGAAGTTTGGTATACATGCCATTCGGTGGTT 1760
ATGGTCCACCACCCAGCGGAGCTGTGCTTTATCGGGAC CCGCATCCATTTATGCCGCTTCCTCTCCACCGCTAAATGTT 1840
ACCGGAAATGGCGAGCCAGCTCGTCTCTACACCCAAAC GGTGAAGATTTGCGCGTGGATATGGTGCATTTGAGATCA 1920
CTACAACATGGCGTGGATTTGCAATTTGGCGCATGTGC CACCACAGCGCGCTGATGAACATAGGAATGTTTGGATACCAT 2000
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ACCTAAGCCAAATGTCAACCCAACTTCAATTTAAAAA TCGTAATTTATGCGAATTTTTTAAAGTTAGCC 2880
GTCACGAAATCAAGAACCACCTATTTATATGATTTAT TTTAAAAACCTTCAACCAAAAATCTACATACTACTA 2960
TATATATACATATATATATATATATATATATTTATG TGTGCTGCTGTCGGCTAGAGACTCACCTATGTAAGGTGTACCATCA 3020
AAAAATTAACCATAAATAAAAACAAGATTCACTACTG 3076
    
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**References**

- 1) King, R.C. and P.D. Storto. 1988. *BioEssays* 8: 18-24.
- 2) Parks, S. and A. Spradling. 1987. *Genes & Development* 1: 497-509
- 3) Mulligan, P.K., D. Mohler, and L. Kalfayan. 1988. *Mol.Cell.Biol.* 8: 1481-1488.
- 4) Champe, M.A. 1988. M.S. thesis, University of Washington, Seattle.