

Nucleotide sequence of the Chinese hamster ornithine decarboxylase gene

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Ornithine decarboxylase (ODC; EC 4.1.1.17) is the first enzyme in the pathway of polyamine biosynthesis in eukaryotic cells, and it plays a key role in the regulation of intracellular polyamine levels. Genomic and cDNA sequences have been reported for this gene from several species (1-7). Srinivasan *et al* have reported a partial cDNA sequence for ODC from the Chinese hamster lung fibroblast V79 line (8). This sequence contains the 3' half of the coding sequence and the entire 3' UTR. In this report we present the sequence of the entire coding region and the 5' UTR of an ODC cDNA from Chinese hamster ovary cells (Figure 1). Our sequence of the 3' UTR confirms that which has been reported previously. The coding sequence is strongly conserved among all mammalian species examined so far, while the UTRs are considerably more divergent.

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CGCAGCGGCGCCGCCGCTCCGCCCGCCCTCAGCCAGCTGCTCGGTGCCACTCGGGCAGCGTCTGCGCGCGCTCGACGA
GGCGCTGACGGGGCGGGCGGACGGCCGAGCTCCTCGGGTTCTTCGGCGCGACTAGTTCATGGGGCTGGCCG
AGTCATTGCGTCCGTGCGCTGTGAGGACGTTACATTC AAGGAGTTCGGAAGTTCCTGGATAGTGTGCTTGGGAGGAA
CTGCCATAACTGGATTCCATCTCTAGAGTTTTGTAGCACACCCGAGAGCCATG AACAGCTTCAATAAGGACGAGTTG
ACTGCCATATCCTCGATGAAGGCTTTACGGCCAAGGACATTC TGGACCAAAAAATTAATGAAGTATCCTCTGATGACA
AGGATGCTTTTTATGTGGCGGACCTTGGAGACGTTCTGAAGAAGCACCTAAGATGGCTAAAAGCTCTCCCGCTCACTC
CCTTTTATCGAGTCAAAATGTAATGACAGCAGAGCGTTAGTGAACACCTTAGCTGCCATTACAGTTGACTGTGCAAGCA
AGACTGAGATACAGTTGGTACAGGGCTTGGAGTGCCTCCCGAGAGAGTCATCTATGCAAAATCCATGTAAGCAAGTGT
CTCAGATCAAGTATGCCGCCAGCAATGGAGTCCAGATGATGACTTTTGACAGTGAAATGAGTTAATGAAGGTGCGCA
GAGCACATCCAAAAGTTACCAAGTTGGTTTTGCGGATCGCCACTGACGATTCTAAAGCAGTGTGTCGACTCAGTGTA
AGTTTGGTGCCCACTCAGAACCAGCAGGCTTCTCTTGAACGGGCAAAAGAGCTAAATATTGATGTCATTGGTGTCA
GCTTCCACGTGGGGAGTGGATGACTGACCTGAGACCTTCGTCAGGCCTTGTCCGATGCCCGCTGTGCTTTTGACA
TGGGAACAGAAGTTGGTTTACGATGATATGCTTGATATTGGTGGTGGCTTTCCTGGATCTGAGGATACGAAGCTTA
AATTGAAGAGATCACCAAGTGTATCAACCCAGCTCTGGACAAGTACTTCCCGCCAGACTCTGGAGTGAGAGTTATAG
CCGAGCCAGGCAGATACACTCGTTGCCTCAGCTTTCACACTGGCAGTCAATATCATAGCCAAAGAAAATCGTATCGAAG
GCTCTGACGATGAAGATGAGTCCAGTGAGCAACCTTCTATGATATTGTAATGATGGAGTGTATGGGTGATTTAACT
GCATCTTTTACGATCATGCACATGTGAAGCCCTGCTGCCGAAGAGACCAAGCCAGATGAGAAGTATTACTCATCCA
GCATCTGGGGACCAACATGCGATGGCTTGACCGGATTGTGGAGCGCTGTAATCTGCCTGAAATGCATGTGGGTGATT
GGATGCTCTTTGAGAACATGGGTGCATACACTGTTGCTGCTGCATCTACTTTCAACGGGTTCAGAGGCCCTTCTATCT
ACTATGTGATGTCGAGGCCAATGTGGCAGCTTATGAAGCAGATCCAGAACCATGGCTTCCACCAGAAGTGAAGAGC
AGGATGTTGGCACTTGCCCATCTCTTGTGCCAGGAGAGCGGATGGACCGTCAATCCAGCAGCCTGTGCTTCTGCTA
GTATCAATGTGTAG
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Figure 1. Chinese hamster ornithine decarboxylase cDNA sequence: nucleotide 1 is the transcription start, the translation initiation (ATG, nt 285) and termination (TAG, nt 1650) sites are underlined.

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