Cloning and sequence of mouse erythroid δ-aminolevulinate dehydratase cDNA

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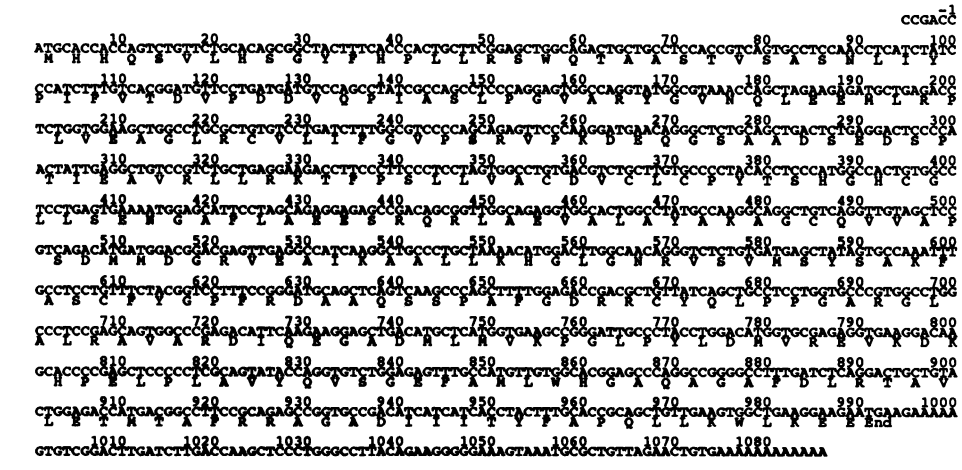
A cDNA library in λgt11 was constructed from mouse (BALB/c) reticulocyte poly(A)$^+$ RNA using oligo(dT) and reverse transcriptase for the first strand synthesis and RNase H and DNA polymerase I for second strand synthesis (1). cDNA was methylated, ligated to EcoRI linkers and exhaustively digested with EcoRI (2). Double-stranded cDNA larger than 800 bp by agarose gel electrophoretic fractionation was then ligated into dephosphorylated λgt11 arms (Stratagene) and packaged (Gigapack; Stratagene) using *E. coli* Y1088 (3). The library was screened using rat liver δ-aminolevulinate dehydratase cDNA (4) and both strands of the longest clone (1092 base pairs), B1, was subjected to dideoxynucleotide sequencing analysis, the results of which are shown below. There are only 9 (out of 330) amino acid differences between rat liver and mouse erythroid ALA-D. The nucleotide sequence of the translated region of B1 is 96% homologous with rat d-aminolevulinate dehydratase cDNA (5) and 97% of the predicted amino acids are identical.

The data reported below have the accession number X13752 in the EMBL, GenBank and DDBJ Nucleotide Sequence Databases.



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