Nucleotide sequence of rat liver glutamate dehydrogenase cDNA

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Glutamate dehydrogenase (GDH), a mitochondrial matrix enzyme, catalyzes the NAD or NADP specific interconversion between α-ketoglutarate and L-glutamate. We have isolated cDNA clones from a rat liver λgt11 cDNA library by crosshybridization with a human liver GDH cDNA clone (pGDHh1) (1). The rat liver GDH cDNA contains a 5'-untranslated sequence of 33 bp, an open reading frame of 1677 bp, a 3'-untranslated sequence of 1124 bp and a 56 base poly(A) tract. The predicted amino acid sequence reveals that the rat liver GDH precursor consists of 558 amino acids, having an amino terminal presequence of 53 amino acids (indicated by arrow). This sequence shows a strong homology to the sequence published for human liver GDH (1), 98 % in the mature protein and 85 % in the presequence regions, respectively.

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REFFRENCE:

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