

Nucleotide sequences of cDNAs α and γ enolase mRNAs from mouse brain

Mourad Kaghad, Xavier Dumont, Pascale Chalon, Jean-Michel Lelias, Noël Lamandé¹, Marguerite Lucas¹, Monique Lazar¹ and Daniel Caput

Laboratoire de Biologie Moléculaire, Sanofi Elf Bio Recherches, BP 137, 31328 Labège Cedex and ¹Laboratoire de Biochimie Cellulaire, Collège de France, 11 Place Marcelin Berthelot, 75005 Paris, France

Submitted May 21, 1990

EMBL accession nos X52379, X52380

We present the nucleotide sequences of cDNAs for murine neuron-specific ($\gamma\gamma$) and non-neuronal ($\alpha\alpha$) enolases. A full-length α cDNA was isolated as previously reported (4). To obtain a full-length γ cDNA, a new library was constructed according to the procedure described in (5). Murine α and γ sequences encode subunits of 433 amino acids showing an overall homology of 83%. There is a high degree of conservation (94% and 98% respectively) with corresponding subunits from human brain (1, 2, 3). No sequence homology was found between untranslated regions (UTRs) of mouse α and γ mRNAs, and the 3' UTRs differ greatly in length (322 and 926 bases respectively). These features are conserved between murine and human species. In

the case of the γ sequences, in addition to a significant overall homology in the 5' and 3' UTRs between these two species (84% and 68% respectively), two repeated motifs (see Fig.) were entirely conserved, confirming the results of previous comparisons between rat and human γ enolase cDNA sequences (1, 2).

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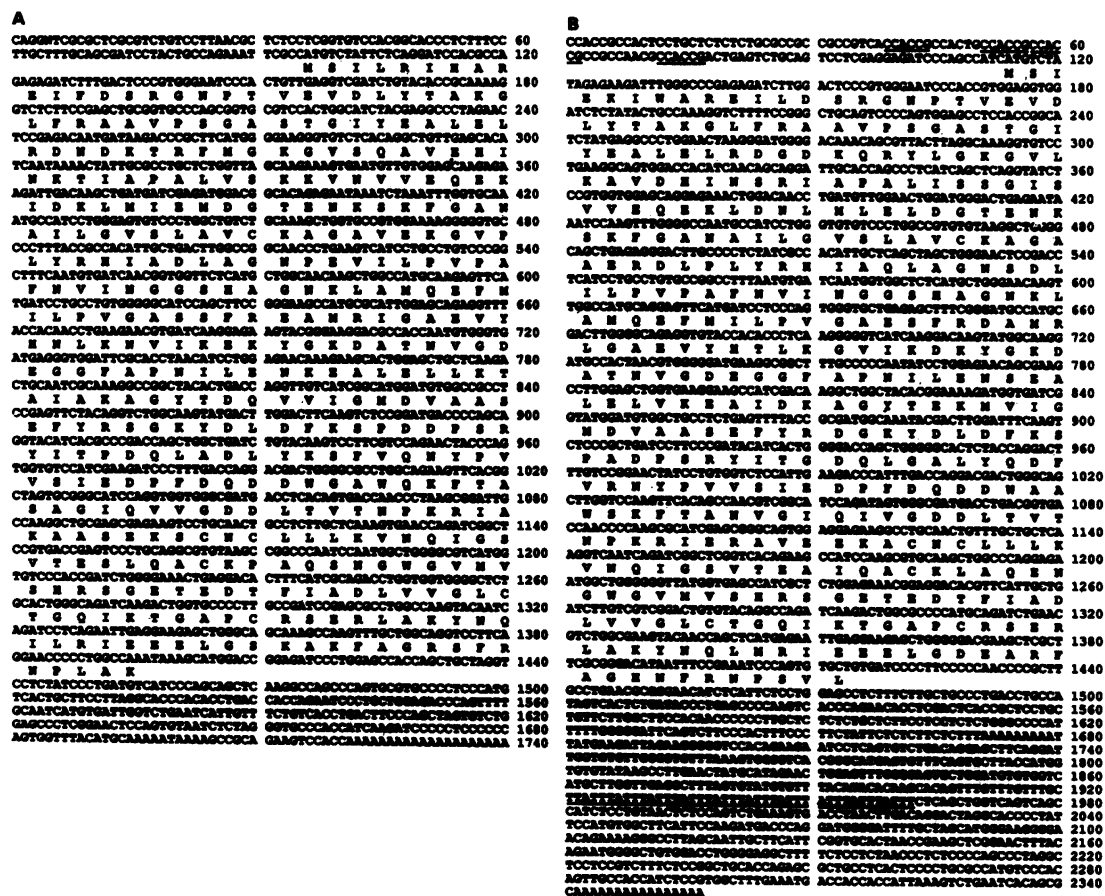


Figure. Nucleotide sequences and predicted amino acid sequences of α (A) and γ (B) enolase cDNAs. Repeated motifs, present in UTRs of γ mRNA, are underlined.