Nucleotide sequence of a full-length cDNA coding for the mitochondrial precursor protein of the \( \beta \)-subunit of F\(_{1}\)-ATPase from *Neurospora crassa*

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Subunits of mitochondrial H\(^+\)-ATPases are investigated under a variety of different aspects: (i) mechanisms of energy coupling (1, 2); (ii) evolution of ATPases (3) and (iii) mechanisms of mitochondrial import and assembly of the nuclear coded subunits (4–7). For the latter reason, we have cloned and expressed a full-length cDNA coding for the nuclear coded \( \beta \)-subunit of the F\(_{1}\)-ATPase from *Neurospora crassa*. The nucleotide sequence and the deduced amino acid sequence are shown in Figure 1. The protein is synthesized in the cytosol as a precursor of 55,470 Da which is cleaved inside mitochondria to the mature protein. The mature protein shares 70–80% of sequence similarity to a variety of different aspects: (i) mechanisms of energy coupling (1, 2); (ii) evolution of ATPases (3) and (iii) mechanisms of mitochondrial import and assembly of the nuclear coded subunits (4–7).

**REFERENCES**


Note added in proof

We have learned that Drs E. and B. Bowman (University of California, Santa Cruz) have cloned the corresponding gene from *N. crassa* (personal communication).

**Figure 1.** Nucleotide sequence of a full-length cDNA insert and the deduced protein sequence for F\(_{1}\)\(\beta\) precursor from *N. crassa*.