Cyanophora paradoxa: Nucleotide Sequence and Phylogeny of the Nucleus Encoded Muroplast Fructose-1,6-bisphosphate Aldolase

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Immunoscreening of a *C. paradoxa* expression library against water soluble muroplast ("cyanelle") proteins resulted in isolation of a clone encoding the nucleus-encoded muroplast class-II fructose-1,6-bisphosphate aldolase (class-II FBA[§]). Its nucleotide sequence was determined. The 1432 bp insert, derived from a single-copy gene transcript, bears a reading frame of 1206 bp in length, representing 402 amino acids with 346 amino acids of mature protein. The leading amino acids match structural features necessary for precursor import across chloroplast envelope membranes. In phylogenetic tree topology, the investigated mature FBA clusters within type B FBAs with *Synechocystis* sp. as nearest neighbor. This is the first report of a Type B class-II FBA sequence of plastids.