GENETICS

Supporting Information
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*DMR1 (CCM1/*YGR150C*)* of *Saccharomyces cerevisiae* Encodes an RNA-Binding Protein From the Pentatricopeptide Repeat Family Required for the Maintenance of the Mitochondrial 15S Ribosomal RNA

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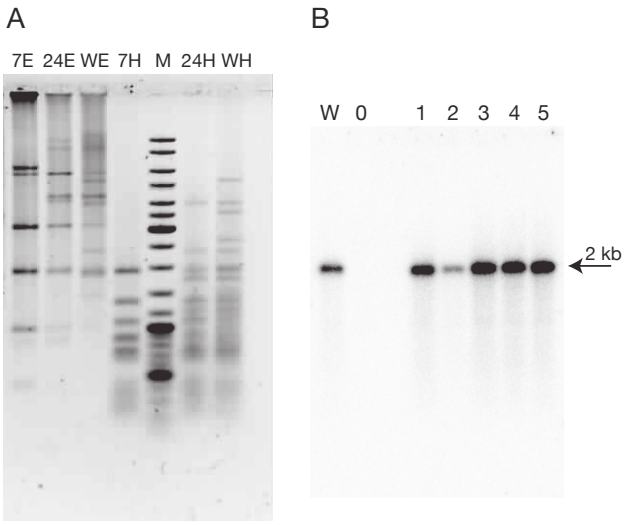

FIGURE S1.—Restriction and Southern analysis of different ρ^- clones expressing 15S rRNA. (B.) Mitochondrial DNA from two independent ρ^- clones expressing 15S rRNA, DPPR2/15S-7 (7) and DPPR2/15S-24 (24) and the wild-type ρ^+ strain CW04 (W) was purified by centrifugation in CsCl/bis-benzimide gradient, digested with *Eco*RV (E) or *Hap*II (H) and separated in a 0.7% agarose gel. M is the GeneRuler™ DNA Ladder Mix (Fermentas). Different restriction patterns of the two independent ρ^- clones are apparent. (B.) Southern blot analysis of total DNA from five independent ρ^- clones expressing 15S rRNA (1 to 5), the wild-type ρ^+ strain CW04 (W) and a ρ^0 negative control (0). DNA was digested with *Hap*II, separated in a 0.7% agarose gel, blotted on a Hybond N+ membrane and probed with the 15S_3ter oligonucleotide probe detecting the 3' fragment of the 15S rRNA gene. Presence of the 2kb fragment, known to contain the entire 15S rRNA gene (OSINGA et al. 1981) is detected in all the ρ^- clones.

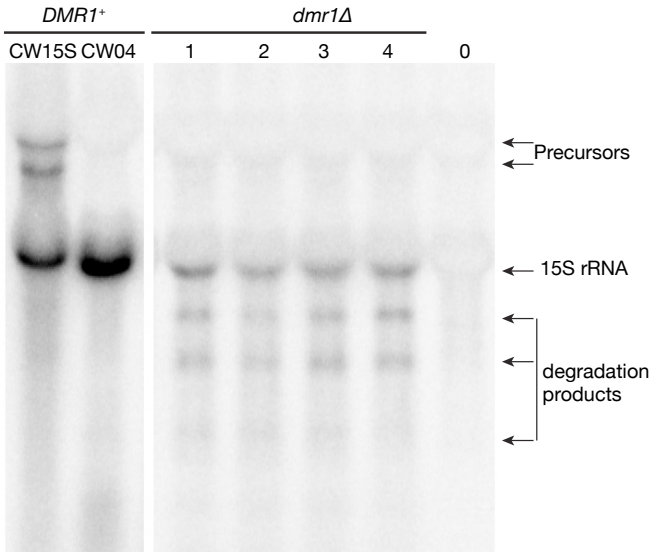

FIGURE S2.—Northern analysis of total RNA from different ρ^- clones expressing 15S rRNA. Total RNA from four independent *dmr1*Δ ρ^- clones expressing 15S rRNA (1 to 4), the wild-type ρ^+ strain (CW04), a strain with the ρ^- genome expressing 15S rRNA introduced into wild-type nuclear background (CW15S), and a ρ^0 negative control (0) was hybridized with an oligonucleotide probe recognizing the 3' fragment of the 15S rRNA (15S_3ter). Neither the wild-type ρ^+ strain (CW252), nor a strain with the same ρ^- genome expressing 15S rRNA introduced into wild-type nuclear background (CW15S), show any signs of degradation, while all the *dmr1*Δ ρ^- clones show a distinct degradation pattern, similar to the one observed in RNA preparations from purified mitochondria. The total amount of 15S rRNA fragments recognized by the probe in the *dmr1*Δ ρ^- clones is decreased in comparison with the *DMR1*$^+$ controls. The amounts of RNA in each lane were normalized using methylene blue staining of cytoplasmic rRNA bands on the blot.