Identification and structural analysis of a ribosomal RNA gene promoter from Thiobacillus ferrooxidans

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The 5'-terminus of a rRNA operon (rrnT2) from Thiobacillus ferrooxidans was characterized. The rRNA promoters from this microorganism were identified by means of a functional assay in Escherichia coli. DNA sequencing of the promoter region, upstream the 16 S rRNA gene, showed the presence of a consensus sequence for bacterial ribosomal promoters. Other features such as a 'discriminator' sequence, antiterminator elements and an upstream hexanucleotide common to several rRNA operons were also found. Two other putative transcription promoters were also identified. © 1990.