

The gene for serine tRNA having anticodon sequence CAG in a pathogenic yeast, *Candida albicans*

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It was demonstrated that codon CUG is assigned as serine instead of leucine in an asporgenic yeast, *Candida cylindracea* (1). This non-universal serine codon is translated by a serine tRNA with anticodon sequence CAG that is complementary to codon CUG (2). We have succeeded in isolating the homologous tRNA gene from *Candida albicans* by amplifying the genomic DNA by the polymerase chain reaction and sequenced. This tRNA gene has anticodon sequence CAG which is able to base-pair with CUG codon (Figure 1). The sequence showed a high homology to serine tRNA specific for codon CUG in *Candida cylindracea*. The tRNA corresponding to this gene was also isolated. This tRNA accepted serine to an appreciable extent, with scarcely any leucine acceptance, indicating that this tRNA having CAG anticodon functions as a serine tRNA. These results clearly showed that *Candida albicans* possesses tRNA translating codon CUG as serine.

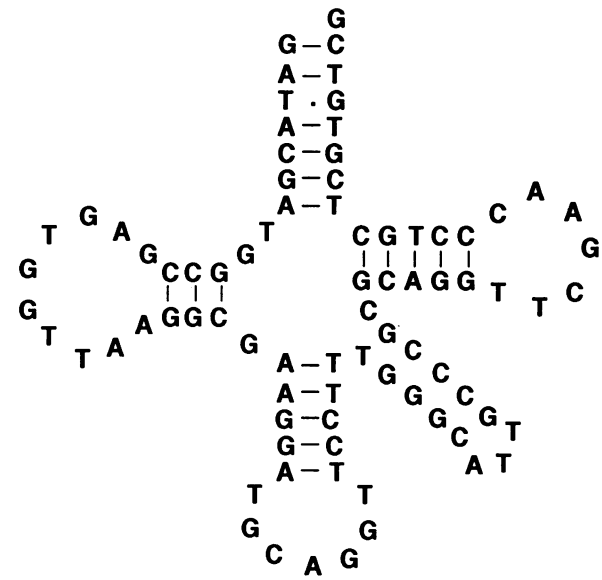

Figure 1. The nucleotide sequence of serine tRNA gene for codon CUG.

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