

ABSTRACT

A comparative study of tRNA gene occurrence in twenty seven eubacteria from the genome sequence data have been done in this study. Transfer RNA genes having anticodons with C at the 1st position, which can only pair with G at the 3rd position of codons were observed though tRNA genes corresponding to the same codons but with T at the 1st position of anticodons that can wobble pair with G were also present in these bacteria. This might be due to the less preference for wobble pairing between U at the 1st position of anticodons and G at the 3rd position of codons. Bacterial genomes with less G + C % shown to be lacking tRNA genes for alanine, proline and valine codons having pyrimidine at the 3rd position. In all bacteria no tRNA against ATA codon is reported. In *Zymomonas mobilis* for TTA (leucine) codon is not observed.