

A glycine tRNA gene from lupine mitochondria

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The sequence of a lupine mitochondrial gene coding for a glycine tRNA (anticodon GCC) is presented here. The cloning of the plasmid from which the gene is derived has been described (1). This plasmid, pEB3, was transcribed after microinjection into *Xenopus laevis* oocyte nuclei yielding a tRNA-sized final product (2). The isolated tRNA-sized transcript was used to map the position of the gene. The glycine tRNA forms a typical clover-leaf structure with all appropriate conserved bases, with one unusual feature, the last two nucleotides of the aminoacyl stem do not form a base pair; a similar situation is encountered in a bacterial tRNA^{Ala} gene (3).

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      10      20      30      40      50      60      70
TTTTGACAAGTCATGCCACGACACTATATCTATATGAGGCTGTGATCGTCTTGAAGTTGAAAAGA
      80      90     100     110     120     130     140
GACAACATGAGTCTTTCAGCTCCGGATCTGCTGATATCTATAATAAATAGAGAGCGTCTTGAATACTGAA
     150     160     170     180     190     200     210
CTTAAAGAAGATGCACCGGTTTCATAGACGGAGGACTAAGTCTGATCTTCGGGTGCACTCACTCCCGTTA
     220     230     240     250     260     270     280
CGAGAATGAAATGACGCCCCAGCTCGACTCGAGACCAAGACTCCTTACAACCTCGCACAATAGTAGCGCG
     290     300     310     320     330     340     350
CCGGAGATTGATTGAAAAGCAGCCGCCCTCCCCCTAGCCGCCTACCTACTCGTGCCTAGCTCGATC
     360     370     380     390     400     410     420
GGAGCTGAAGACTTTTGTCCGGCGAAAAAGAGAAGTCGTCGCTCAAGTGATACGTTAATGTCTCAG
     430     440     450     460     470     480     490
TAGTCTTGGCCACTACCGTAGCTGCCGAAATAGCTTAATGGTAGAGCATAGCCTTGCCAAGCTGAGGT
     500     510     520     530     540     550     560
TGAGGGTTCAAAGTCCCTCCTCCGCTCTTGGCTTCGCTGTTAGTGGTAACGAGTAGAGTAGCATCGCCT
     570     580     590     600     610     620     630
CTCGATCCAATCCGCTTTCCCTGGCCTCCCCAACACACTCTTGATACGAAAGAAACCTCCGCCCATAGA

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