



 Outline



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RNA codons recognized by transfer RNA from amphibian embryos and adults

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Abstract

Nucleotide sequences of thirty-seven RNA codons recognized by aminoacyl-transfer RNA from amphibian embryos were determined and were compared with codons recognized by transfer RNA from adult *Xenopus* liver and from *Escherichia coli*. The correspondence between RNA codons and amino acids, determined with aminoacyl-tRNA from embryos and adults, does not differ grossly for the twelve amino acids examined. However, both *Xenopus* embryo and adult aminoacyl-tRNA differ from *E. coli* aminoacyl-tRNA in relative response to certain synonym trinucleotides.

Abbreviations

tRNA, transfer RNA; AA-tRNA, aminoacyl-tRNA; mRNA, messenger RNA; U, uracil; C, cytosine; A, adenine; G, guanine; ATP, adenosine triphosphate; UCA represents a trinucleoside diphosphate with 5'-terminal hydroxyl attached to U and 2', 3'-terminal hydroxyls attached to A, UpCpA; codon, codeword; Arg, arginine; Asp, aspartic acid; Glu, glutamic acid; Gly, glycine; Ile, isoleucine; Lys, lysine; Met, methionine; Phe, phenylalanine; Ser, serine; Thr, threonine; Tyr, tyrosine; Val, valine-tRNA; A₂₆₀, absorbancy at 260 mμ; DEAE, diethylaminoethylcellulose

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