



 Outline



Purchase

Export 

RNA codons recognized by transfer RNA from amphibian embryos and adults

Richard Marshall ... Marshall Nirenberg

[Show more](#)[https://doi.org/10.1016/0012-1606\(69\)90067-0](https://doi.org/10.1016/0012-1606(69)90067-0)[Get rights and content](#)

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

Choose an option to locate/access this article:

Check if you have access through your login credentials or your institution.

[Check Access](#)

or

[Purchase](#)

or

[Check for this article elsewhere](#)[Recommended articles](#) [Citing articles \(9\)](#)

Copyright © 1969 Published by Elsevier Inc.

ELSEVIER

[About ScienceDirect](#) [Remote access](#) [Shopping cart](#) [Contact and support](#) [Terms and conditions](#) [Privacy policy](#)Cookies are used by this site. For more information, visit the [cookies page](#).

Copyright © 2017 Elsevier B.V. or its licensors or contributors. ScienceDirect ® is a registered trademark of Elsevier B.V.

 RELX Group™

