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Translation

1 message

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Thanks for filling out Translation

Here's what we got from you:

EDIT RESPONSE

Translation

Due: next class - as always.

Your email address (**grossoehmen2@mailbox.winthrop.edu**) was recorded when you submitted this form.

What is a codon?

> 3 nucleotides sequence that matches up with an amino acid

What is meant by a frameshift mutation?

> When the codon trios get mixed up - instead of being 123-456-789, a frameshift might be 1-234-567-89...this results in a different amino acid sequences

What are anticodons and what role do they play in translation?

> the 3 nucloetides that are part of tRNA which WC base pair with the mRNA codons

What are the four "remarkable features" of the genetic code?

> highly degenerate, nonrandom, stop codons, start codons

tRNA molecules do not contain modified bases.

○ True

◉ False

What are the four loops on tRNA called?

anticodon loop, acceptor stem, t psi C arm, D arm

What enzyme is responsible for forming the covalent bond between an amino acid and a tRNA

amionacyl-tRNA synthetase

What doe the "t" in tRNA stand for?

transfer

Watson and Crick Base pairing between the codon and anticodon is the least important at which position?

○ 1

○ 2

◉ 3

How many independent RNA molecules are present in prokaryotic ribosomes?

○ 1

○ 2

◉ 3

○ 4

○ 5

What is the Shine-Dalgarno Sequence?

An RNA sequence that is ~10 nt upstream of the start codon in prokaryotes - base pairs with a sequence on the ribosome - this is required for initiation of translation

What modification occurs at the N-terminus of proteins in E. coli?

The N-term is often formylated (formate added to the N-term)

How many Initiation Factors are used in translation?

○ 1

○ 2

● 3

○ 4

○ 5

How many Elongation Factors are used in translation?

○ 1

○ 2

● 3

○ 4

○ 5

How many Release Factors are used?

○ 1

○ 2

○ 3

● 4

○ 5

What are the three steps of the elongation cycle in E. coli?

decoding, transpeptidation, translocation

What is the error rate in E. coli translation (per residue)?

○ 1e-2

● 1e-4

○ 1e-6

During chain transfer, the growing peptide chain is transferred from the P site to the A site.

- ⦿ True
- ○ False

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