

Translation & Proteins

T/F & fill in:

Microbiome _____ helps to understand the microbiome population.

Ribosomes need both subunits to work.

Bacteria ribosomes are _____ while Eukaryotes are _____.

18sRNA sequencing can be used to identify bacteria species.

_____ are precursors to proteins.

_____ assist in protein folding.

What does translation require?

Compare and contrast high yield and low yield dairy cattle and their microbiome.

Describe the tRNA molecule.

Describe tRNA charging.

What does initiation require?

Describe how initiation works in bacteria.

What is the shin-Dalgarno sequence in prokaryotes? What is its sister sequence in eukaryotes?

The A site:

The P site:

The E site:

Describe chain elongation.

Describe termination. What release factors are needed?

What are polysomes?

Describe some differences in translation in eukaryotes compared to prokaryotes.

What post-transcriptional modifications allow for closed loop translation in eukaryotes?

What is a closed-loop translation?

Describe phenylketonuria, a metabolic error due to protein translation.

What is Alkaptonuria?

Describe amino acids.

What are peptide bonds? What is produced when they are formed?

Primary proteins:

Secondary proteins:

Tertiary proteins:

Quaternary protein:

List the posttranslational modifications added to the proteins to make them functional.

What are the two diseases of protein folding?

