APPENDIX 4

AMINO ACIDS IN PROTEIN COMPOSITION AND THE GENETIC CODE

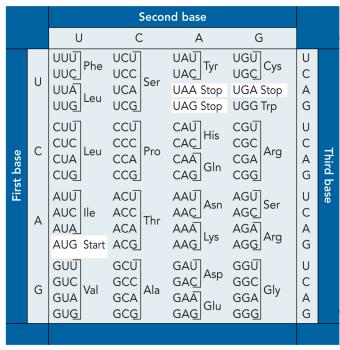
Amino acid	Abbreviation	Amino acid	Abbreviation	Amino acid	Abbreviation
Alanine	Ala	Glycine	Gly	Proline	Pro
Arginine	Arg	Histidine	His	Serine	Ser
Asparagine	Asn	Isoleucine	lle	Threonine	Thr
Aspartic acid	Asp	Leucine	Leu	Tryptophan	Trp
Cysteine	Cys	Lysine	Lys	Tyrosine	Tyr
Glutamic acid	Glu	Methionine	Met	Valine	Val
Glutamine	Gln	Phenylalanine	Phe		

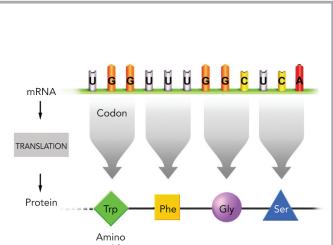
THE GENETIC CODE

The genetic code indicates how each nucleotide triplet (codon) carried by the mRNA should be translated during protein synthesis. In the example below, the amino acid trytophan (Trp) is encoded by the codon UGG, while the amino acid phenylalanine (Phe) is encoded by the codon UUU.

The codon AUG not only encodes the amino acid methionine (Met) but also acts as the start codon, initiating the protein synthesis. Codons UAA, UAG and UGA (stop codons) signal the end of the protein synthesis.

GENETIC CODE





EXAMPLE OF TRANSLATION