

## genetic code

The set of rules which governs the relationship between the linear order of the nucleotides in an mRNA molecule and the sequence of the amino acids in the protein which it encodes. The genetic code is a triplet code, nearly universal. It is not overlapping: a mutation which alters only a single nucleotide in a gene can change only one amino acid in the encoded protein. It is degenerate: it assigns each of the 20 amino acids to one or more of 61 of the 64 possible nucleotide triplets (cf. codon) that can be constructed from four nucleotides. The remaining three triplets are used to signal the termination of a genetic message.

**Source:**

PAC, 1992, 64, 143 (*Glossary for chemists of terms used in biotechnology (IUPAC Recommendations 1992)*) on page 155