

The Genetic Code for Computational Scientists

Second Position of Codon			
	T	C	A
T	TTT Phenylalanine (Phe) [F] TTC TTA Leucine (Leu) [L] TTG	TCT Serine (Ser) [S] TCC TCA TCG	TAT Tyrosine (Tyr) [Y] TAC TAA Stop (<i>Ter</i>) [end] TAG
C	CTT Leucine (Leu) [L] CTC CTA CTG	CCT Proline (Pro) [P] CCC CCA CCG	CAT Histidine (His) [H] CAC CAA Glutamine (Gln) [Q] CAG
A	ATT Isoleucine (Ile) [I] ATC ATA ATG Methionine (Met) [M]	ACT Threonine (Thr) [T] ACC ACA ACG	AAT Asparagine (Asn) [N] AAC AAA Lysine (Lys) [K] AAG
G	GTT Valine (Val) [V] GTC GTA GTG	GCT Alanine (Ala) [A] GCC GCA GCG	TGT Cysteine (Cys) [C] TGC TGA Stop (<i>Ter</i>) [end] TGG Tryptophan (Trp) [W]

F **i** **r** **s** **t** **P** **o** **s** **i** **t** **i** **o** **n**

NOTES:

1. All 64 three-letter codons have a unique meaning. For most (e.g., **TTG**), the meaning is the amino acid (**Leucine**) given to the right of the codon in the table. For each amino acid, its three-letter abbreviation is given in parentheses (**Leu**) and its 1-letter abbreviation in square brackets [**L**].

There are also three Stop codons: TAA, TAG, and TGA.

2. A number of the amino acids and their codons are color coded to help distinguish the correspondence.

- Leucine is coded orange-red.
- Serine is coded turquoise.
- The Stop codons are red.
- Histidine is coded dark blue.
- Arginine is coded magenta.
- Methionine, whose code is the Start codon, is coded dark green.
- Asparagine is coded maroon.
- Aspartic Acid is coded peru.