

Standard Genetic Code

	U		C		A		G			
U	UUU	(Phe/F) Phenylalanine	UCU	(Ser/S) Serine	UAU	(Tyr/Y) Tyrosine	UGU	(Cys/C) Cysteine	U	
	UUC		UCC		UAC		UGC			
	UUA		UCA		UAA		UGA			Stop (Opal)
	UUG		UCG		UAG		UGG			(Trp/W) Tryptophan
C	CUU	(Leu/L) Leucine	CCU	(Pro/P) Proline	CAU	(His/H) Histidine	CGU	(Arg/R) Arginine	C	
	CUC		CCC		CAC		CGC			
	CUA		CCA		CAA		CGA			
	CUG		CCG		CAG		CGG			
A	AUU	(Ile/I) Isoleucine	ACU	(Thr/T) Threonine	AAU	(Asn/N) Asparagine	AGU	(Ser/S) Serine	A	
	AUC		ACC		AAC		AGC			
	AUA		ACA		AAA	(Lys/K) Lysine	AGA	(Arg/R) Arginine		
	AUG*	ACG	AAG		AGG					
G	GUU	(Val/V) Valine	GCU	(Ala/A) Alanine	GAU	(Asp/D) Aspartic acid	GGU	(Gly/G) Glycine	G	
	GUC		GCC		GAC		GGC			
	GUA		GCA		GAA	(Glu/E) Glutamic acid	GGA			
	GUG		GCG		GAG		GGG			
	U		C		A		G			

* The codon AUG both codes for methionine and serves as an initiation site: the first AUG in an mRNA's coding region is where translation into protein begins

Inverse Table (compressed using IUPAC notation)

Amino acid	Codons	Compressed	Amino acid	Codons	Compressed
Ala / A	GCU, GCC, GCA, GCG	GCN	Leu / L	UUA, UUG, CUU, CUC, CUA, CUG	YUR, CUN
Arg / R	CGU, CGC, CGA, CCG, AGA, AGG	CGN, MGR	Lys / K	AAA, AAG	AAR
Asn / N	AAU, AAC	AAY	Met / M	AUG	
Asp / D	GAU, GAC	GAY	Phe / F	UUU, UUC	UUY
Cys / C	UGU, UGC	UGY	Pro / P	CCU, CCC, CCA, CCG	CCN
Gln / Q	CAA, CAG	CAR	Ser / S	UCU, UCC, UCA, UCG, AGU, AGC	UCN, AGY
Glu / E	GAA, GAG	GAR	Thr / T	ACU, ACC, ACA, ACG	ACN
Gly / G	GGU, GGC, GGA, GGG	GGN	Trp / W	UGG	
His / H	CAU, CAC	CAY	Tyr / Y	UAU, UAC	UAY
Ile / I	AUU, AUC, AUA	AUH	Val / V	GUU, GUC, GUA, GUG	GUN
START	AUG		STOP	UAA, UGA, UAG	UAR, URA