

Codons:

4. Translate the codon sequence into an amino sequence. Use the chart provided.

Codons:	AUG	CCG	AUC
		↓	
Amino Acids:	Methionine	Proline	Isoleucine

Amino Acid Sequence:

5. Write out the one-letter abbreviations for the amino acids in the sequence. Use the chart provided.

6. Go to <http://www.ncbi.nlm.nih.gov/BLAST/> and choose Protein-Protein BLAST (top of the second column).

7. Enter the one-letter abbreviations for your amino acid sequence in the SEARCH box – be sure to enter them in the correct order!

8. Click on the “BLAST” button.

9. At the next page, click on the “FORMAT” button. It may take a few minutes to process your sequence.

AMINO ACID CHARTS AND PROTEIN NAMES

Possible proteins
Presenilin 2
Synuclein
Laforin
Leptin
BRCA 2
Dystrophin
Apolipoprotein E

AMINO ACID	abbreviation
Alanine	A
Arginine	R
Asparagine	N
Aspartic acid	D
Cysteine	C
Glutamine	Q
Glutamic acid	E
Glycine	G
Histidine	H
Isoleucine	I
Leucine	L
Lysine	K
Methionine	M
Phenylalanine	F
Proline	P
Serine	S
Threonine	T
Tryptophan	W
Tyrosine	Y
Valine	V

		Second letter				
		U	C	A	G	
First letter	U	UUU Phenyl-alanine UUC UUA Leucine UUG	UCU Serine UCC UCA UCG	UAU Tyrosine UAC UAA Stop codon UAG Stop codon	UGU Cysteine UGC UGA Stop codon UGG Tryptophan	U C A G
	C	CUU Leucine CUC CUA CUG	CCU Proline CCC CCA CCG	CAU Histidine CAC CAA Glutamine CAG	CGU Arginine CGC CGA CGG	U C A G
	A	AUU Isoleucine AUC AUA Methionine; initiation codon AUG	ACU Threonine ACC ACA ACG	AAU Asparagine AAC AAA Lysine AAG	AGU Serine AGC AGA Arginine AGG	U C A G
	G	GUU Valine GUC GUA GUG	GCU Alanine GCC GCA GCG	GAU Aspartic acid GAC GAA Glutamic acid GAG	GGU Glycine GGC GGA GGG	U C A G