

	U	C	A	G	
U	UUU } Phe (F) UUC } UUA } Leu (L) UUG }	UCU } UCC } Ser (S) UCA }	UAU } Tyr (Y) UAC } UAA Stop (terminator) UAG Stop (terminator)	UGU } Cys (C) UGC }	U C A G
C	CUU } CUC } Leu (L) CUA } CUG }	CCU } CCC } Pro (P) CCA } CCG }	CAU } His (H) CAC } CAA } Gln (Q) CAG }	CGU } CGC } Arg (R) CGA } CGG }	U C A G
A	AUU } AUC } Ile (I) AUA } AUG Met (M) (initiator)	ACU } ACC } ACA } Thr (T) ACG }	AAU } Asn (N) AAC } AAA } Lys (K) AAG }	AGU } Ser (S) AGC } AGA } Arg (R) AGG }	U C A G
G	GUU } GUC } GUA } Val (V) GUG }	GCU } GCC } GCA } Ala (A) GCG }	GAU } Asp (D) GAC } GAA } Glu (E) GAG }	GGU } GGC } Gly (G) GGA } GGG }	U C A G

= Polypeptide chain initiation codon
 = Polypeptide chain termination codon

Original mRNA sequence: 5'-AUG AAC GGU UCU CUA UGU AAG

Mutated mRNA sequence #1: 5'-AUG AAC GGU UCU CUA UGC AAG

Mutated mRNA sequence #2: 5'-AUG AAG GGU UCU CUA UGU AAG

Mutated mRNA sequence #3: 5'-AUG AAC GGU UCU CUA UGA AAG

Mutated mRNA sequence #4: 5'-AU AAC GGU UCU CUA UGU AAG

Using the codon table above, what type of mutation has occurred at the yellow highlighted nucleotide of mutated sequences #1, 2, 3, and 4?

2	Insertion
	Silent
4	Missense
3	Nonsense
	Frame-shift
1	