

The base sequences from two strands of DNA are shown in the diagram below. The two sequences are from the same section of a chromosome: the first is the normal sequence and the second is a mutant form.

Normal DNA AATCAGGTTA

Mutant DNA ATACCAGTTA

- (a) Describe and name two point mutations in the mutant DNA
- (b) After transcription, a strand of mRNA is produced. Write the mRNA sequence which would be produced from the mutant DNA
- (c) (i) Describe how the polypeptide chain produced from this mRNA sequence may differ from the normal polypeptide
  - (ii) Suggest how this might affect the activity of the polypeptide