

Questions

1. Given a DNA sequence in the forward strand,
 - (i) find the sequence of the reverse strand
 - (ii) the RNA sequence synthesised
 - (iii) the amino acid synthesised

Sample DNA sequence:

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gtttcattataccagtttagatctatcgacagggcggttgagtgtgtgcttactcacggct
ggcatgtaggtaacagtagtggggaagcgtaacatctgaggcctgactcacatatagagt
gtcgaccaaggggtgaagcatcatcacgacagggccctagcgaaacgacctagtcta
aagacacacgagaatgaaacccgtggacttgggttacagcgtaataatctggtcagagctg
gtccggcgctggcgatgtaccttacgccactgcaaaccggccttgacagagaacatctggg
tacattcccgtgtcatgtcaaagcaggtgattcccgcgaaaaacaattaacgacgcattt
gctattgacgaagtcctagttctccgaattgagcgggagacatatgatgtcgagactgca
ggaaccgaattatcctgtccgcagatccaatagctcacagaggttaaggggagtgatgg
tgccctagggtgtttgaacg
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2. Write a program to generate a restriction map for Wuhan isolate-1 genome (Acc. Id.: NC_045512) using EcoRI as RE and compare your results with REBSites.
3. Write a program to identify all possible restriction recognition sites in a given DNA sequence.