

Restriction Enzyme Practice

Name _____ Date _____ Per _____

Directions: Identify the restriction sites for each of the examples given. Show the cuts, sticky or blunt, number of DNA fragments produced and the number of base pairs in each (count the top row).

1. *HpaI* --- 5' GTT - AAC 3'

5' GGATGTTAACAATCTCTACGGGTTAACACCCTTGGGTTAACATCCGCGG 3'
3' CCTACAATTGTTAGAGATGCCCAATTGTGGGAACCCAATTGTAGGCGCC 5'

Number of pieces of DNA _____ Length of pieces _____

2. *SspI* --- 5' AAT - ATT 3'

5' GGATAATATT GTTAAACAATCTCTACGGGTTAACACCCTTGGGAATATTTTAA 3'
3' CCTATTATAACAATTGTTAGAGATGCCCAATTGTGGGAACCTTATAAAATT 5'

Number of pieces of DNA _____ Length of pieces _____

3. *PstI* --- 5' CTGCA - G 3'

5' ACGCTGCA/GACGTATTATTAT CCGCCGCTGCA/GCC GTCATCA 3'
3' TGCG/ACGTCTGCATAATAATAGGCGGCG/ACGTCCGCAGTAGT 5'

Number of pieces of DNA _____ Length of pieces _____

4. *HindII* --- 5' GTC - GAC 3'

5' ACGACGTAGTCGACTTATTAT GTCGACCCGCCGCGTGTGCGACCATCA 3'
3' TGCTGCATCAGCTGAATAATACAGCTGGGCGGCGCACAGCTGGTAGT 5'

Number of pieces of DNA _____ Length of pieces _____

5. *EcoRI* --- 5' G - AATTC 3'

5' ACGACGTATTAGAATTCTTAT CCGCCGCCGGAATTCTCATCA 3'
3' TGCTGCATAATCTTAAGAATAGGCGGCGGCCTTAAGAGTAGT 5'

Number of pieces of DNA _____ Length of pieces _____