

APh 162 Molecular Biology I

1. Discuss the results of your digestion gel.
 - a. What size fragments do you expect from your digestion for the backbone plasmid?
 - b. Include a picture of the gel labeled with the approximate size of each band, estimated using the ladders.
 - c. Are you missing any bands? Where might they be?
 - d. If your gel does not match your expected results, discuss why not.
2. Based on your gel, find the migration distance as a function of size.
3. The λ -phage genome is 48,502bp.
 - a. If the sequence was totally random, how many HindIII (5A'AGCTT3) and EcoRI (5G'AATTC3) sites would you expect? How many are there in reality?
 - b. Given the actual restriction sites for EcoRI and HindIII, calculate the expected segment lengths of the DNA ladder.
 - c. See the restriction site map on the class website for the λ -phage genome.