Protein Agarose Gel Electrophoresis

Illustration of Gel electrophoresis with pH 8.6 buffer:

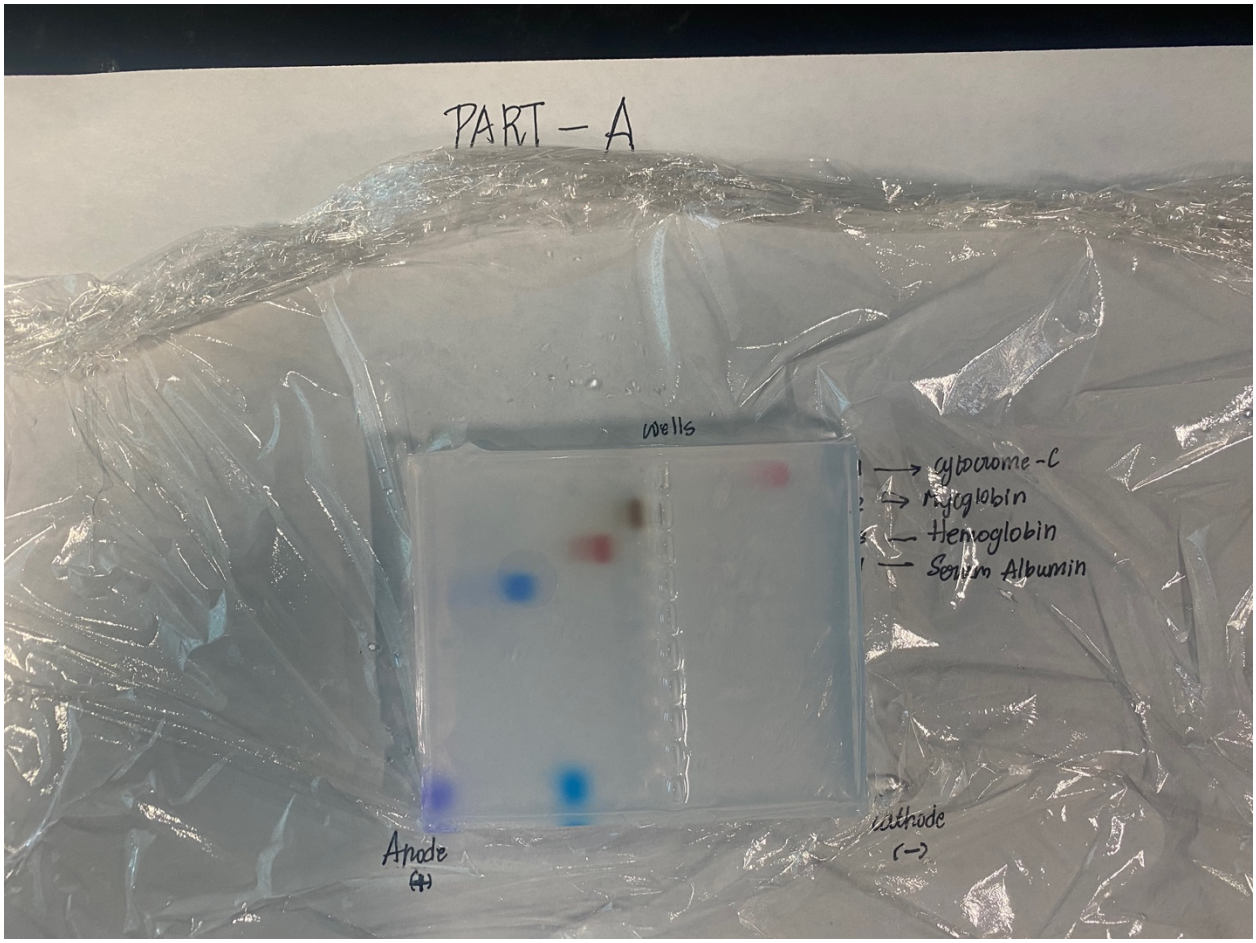
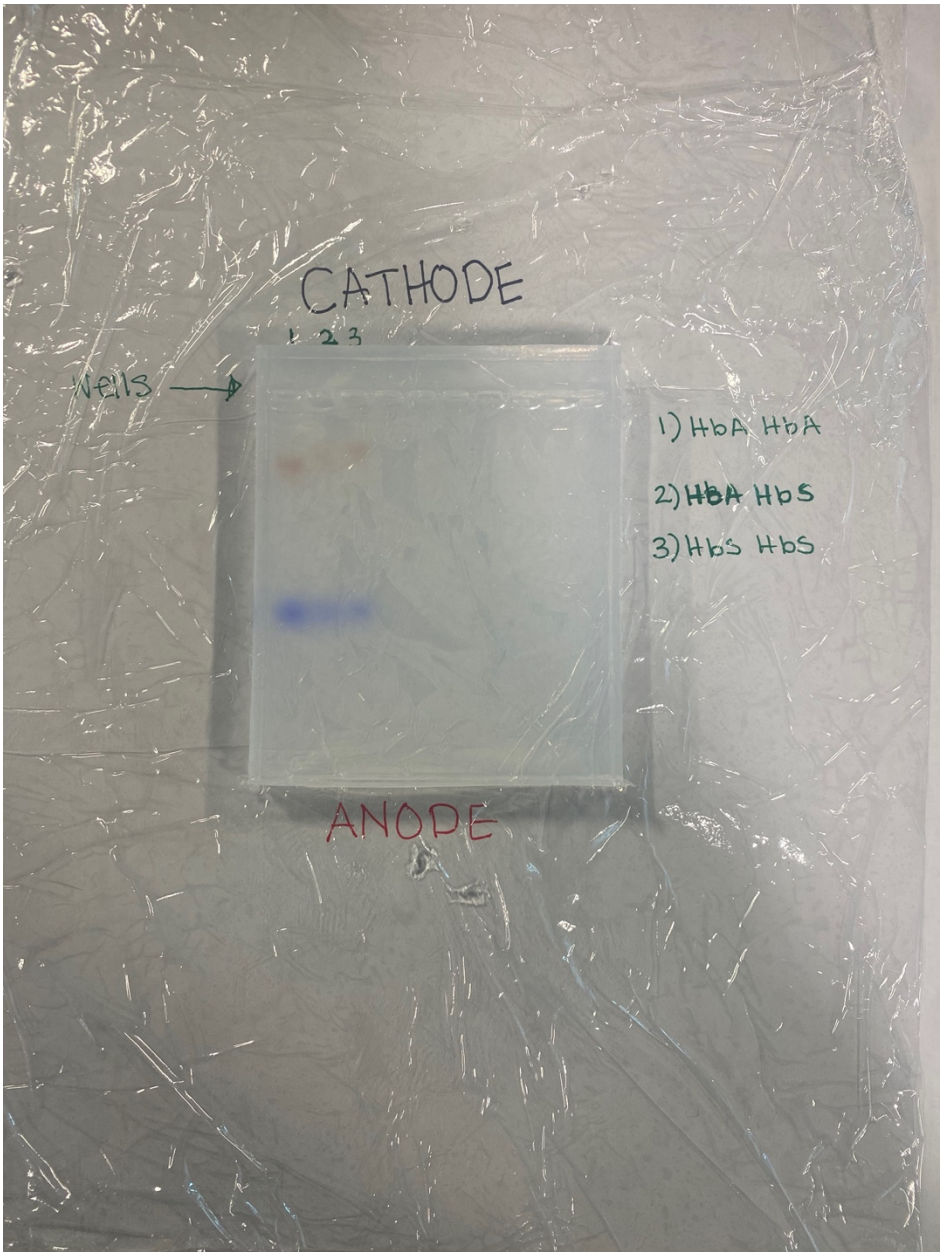


Illustration of Gel electrophoresis with pH 9.2 buffer:



The pH of the Tris-Glycine buffer used in Part A is 8.6, so the molecules will react this way:

i. Cytochrome C: pI =10.2 Net charge = positive
The protein will migrate towards the cathode.

ii. Myoglobin: pI=7.2 Net charge = negative
The protein will migrate towards the anode.

iii. Hemoglobin (rabbit): pI=6.8 Net charge = negative
The protein will migrate towards the anode.

iv. Serum albumin: pI=4.8 Net charge = negative
The protein will migrate towards the anode.

Migration rate is proportional to the strength of the protein's charge. The serum Album is lowest in PI, which means its strength of the charge is higher than myoglobin and hemoglobin, so it will migrate faster.