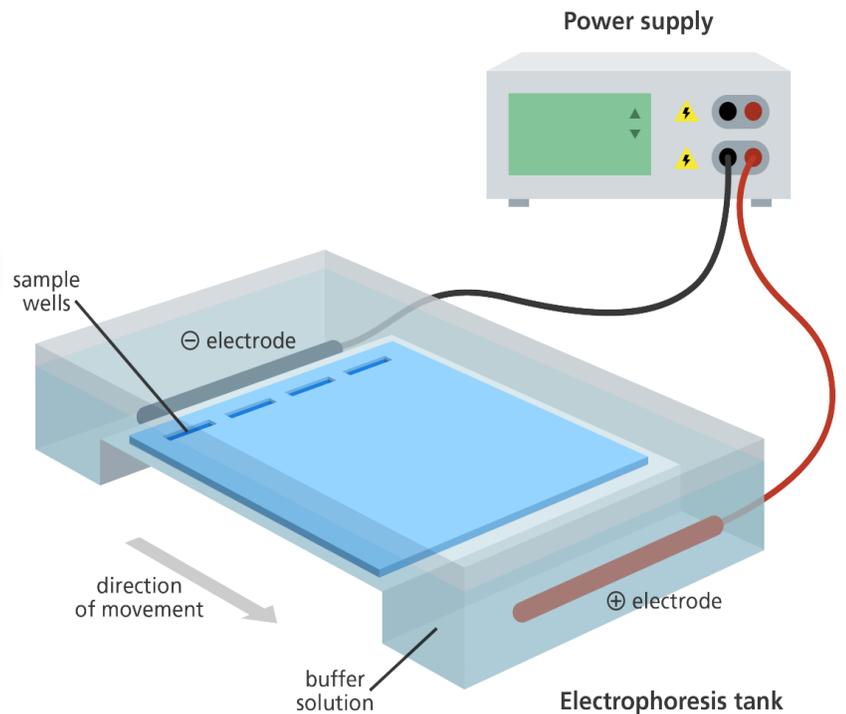
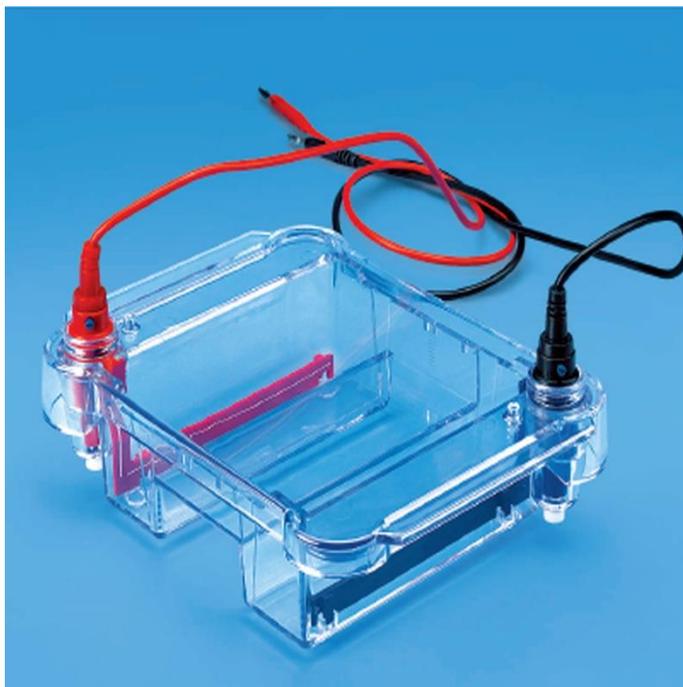


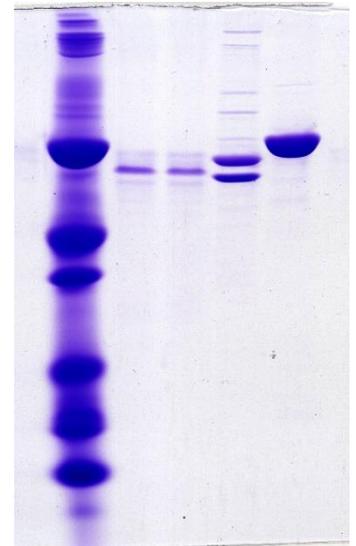
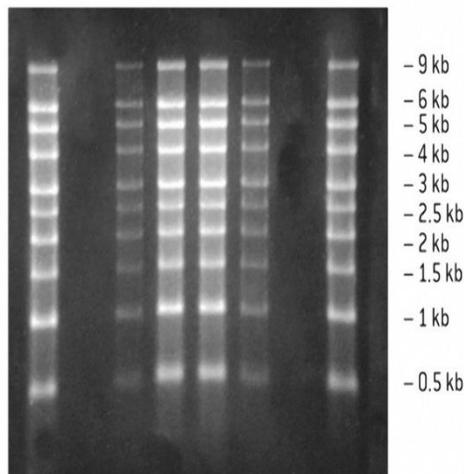
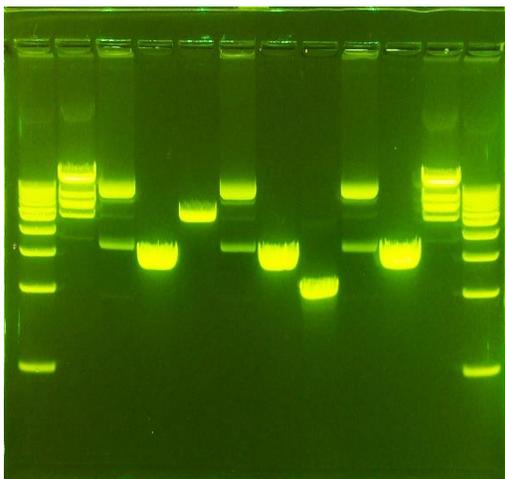
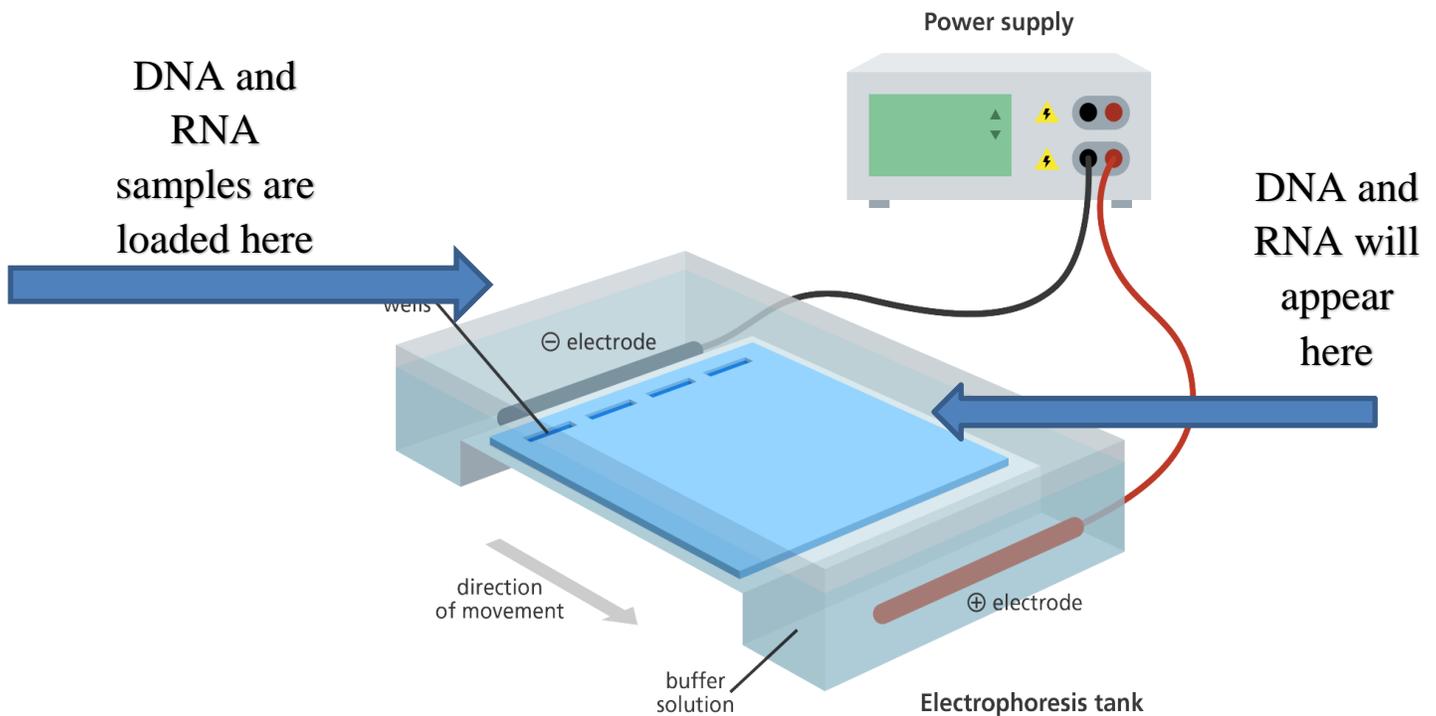
Electrophoresis

Electrophoresis is a laboratory technique used to separate DNA, RNA, or protein molecules based on their size and electrical charge. An electric current is used to move molecules to be separated through a gel.



Molecular Biology " Electrophoresis "

- To separate DNA using **agarose gel electrophoresis**, the DNA is loaded into pre-cast wells in the **gel** and a current applied. The phosphate backbone of the DNA (and RNA) molecule is negatively charged, therefore when placed in an electric field, DNA fragments will migrate to the positively charged anode.



Molecular Biology " Electrophoresis "

Three purposes using a buffered solution in gel electrophoresis:

- 1- It provides the necessary ions to conduct electricity,
- 2- Helps maintain a stable pH and a stable temperature.
- 3- A buffer also keeps the gel from melting.