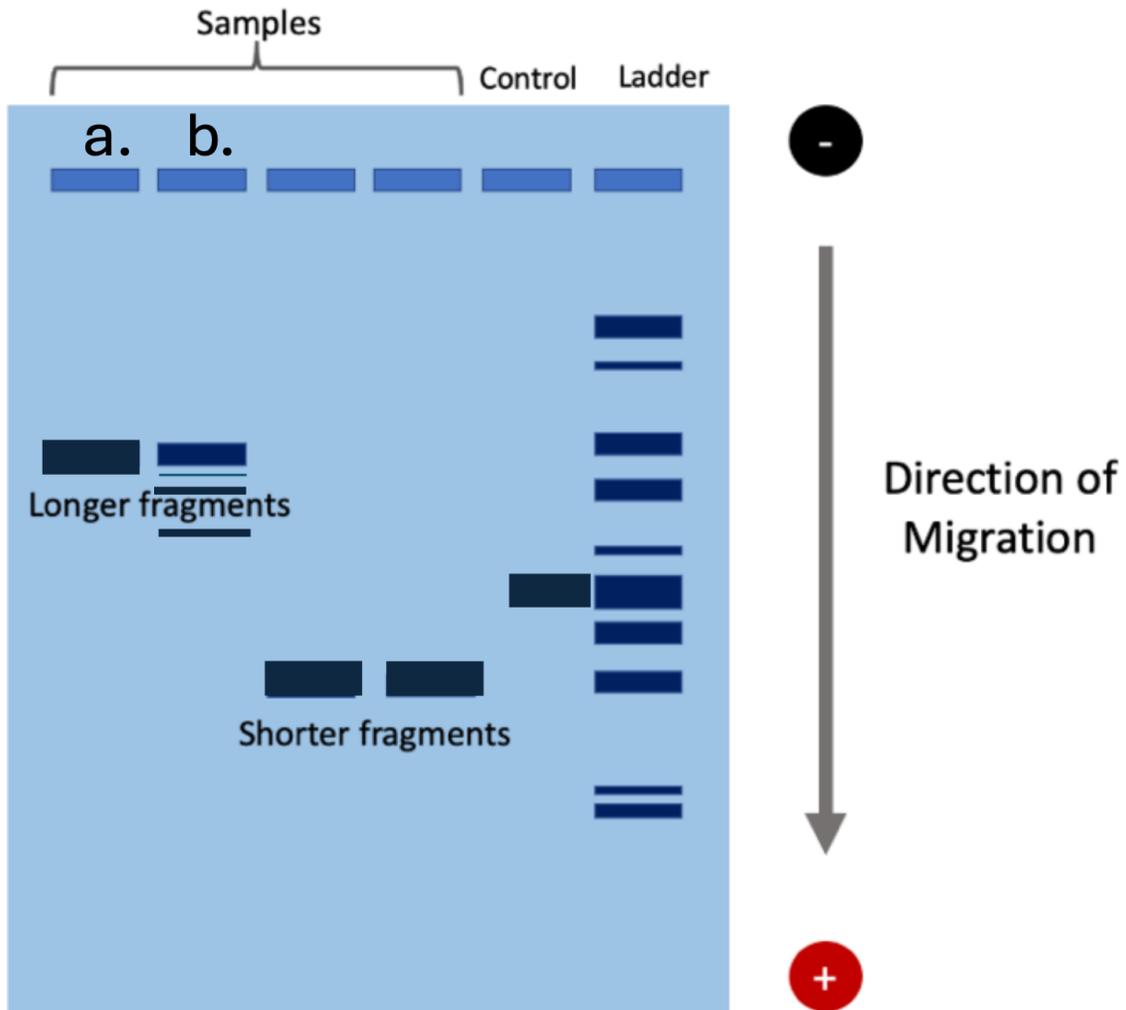


# **Gel electrophoresis 101**

# What is gel electrophoresis?

- A lab technique that separates DNA, RNA, or protein strands based on size
- Samples are placed into **wells** at the top of the gel
- Each **lane** contains a different sample
- An electric field is applied to the gel, so that the top is negatively charged and the bottom is positively charged
  - This causes DNA and RNA molecules to travel towards the bottom (positive) end of the plate
- Shorter strands move through the gel more quickly, so will move further down the gel than longer strands
- The gel is stained (optional) and visualized under UV light (can be visualized other ways too)
- Accumulation of DNA or RNA at a particular location creates a **band**
- The thickness/intensity of the band correlates to the number of molecules at that location
- Many experiments include a **ladder** and/or **controls**



Let's define:

- Well
- Lane
- Band
- Ladder
- Control