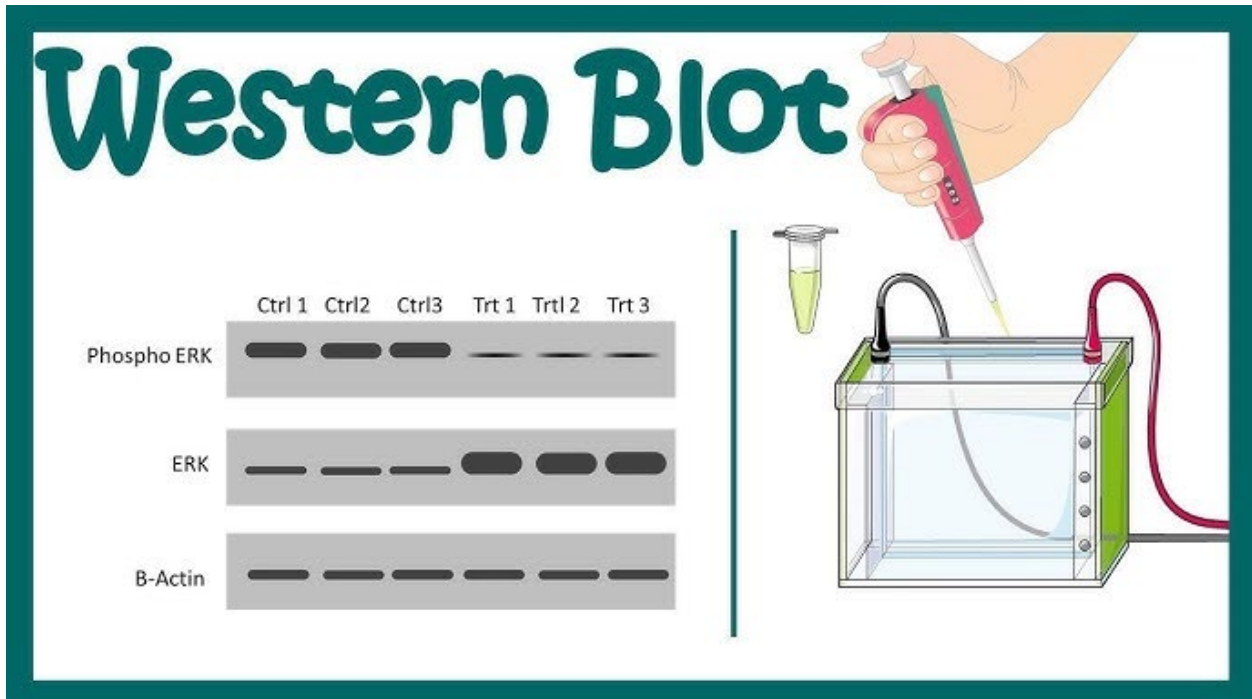


## Lab 6

### Western Blotting (WB)



## Western Blotting (WB)

- Western Blot is known as protein blotting or immunoblotting.
- A molecular biology technique to **identify specific proteins** and determine the relative mass.
- A powerful and important procedure for the immunodetection of proteins electrophoresis.
- Using a western blot, researchers can identify specific proteins from a complex mixture of proteins extracted from cells. Western blot is considered a confirmatory test for HIV.

- Since the inception of the protocol for protein transfer from an electrophoresed gel to a membrane in 1979, protein blotting has evolved greatly from DNA **(Southern)** blotting and RNA **(Northern)** blotting then **(Western)** blotting term was coined to describe a procedure that was slightly modified.

**SN ❄️ W**

**DR 📍 P**

<b>S</b>	<b>- SOUTHERN</b>	<b>- DNA</b>	<b>- D</b>
<b>N</b>	<b>- NORTHERN</b>	<b>- RNA</b>	<b>- R</b>
<b>❄️</b>	<b>- ❄️❄️❄️❄️❄️❄️❄️</b>	<b>- ❄️❄️❄️❄️</b>	<b>- ❄️</b>
<b>W</b>	<b>- WESTERN</b>	<b>- PROTEIN</b>	<b>- P</b>

### **Western Blot specific advantages:**

- Wet membranes are pliable and easy to handle.
- The proteins immobilized on the membrane are readily and equally accessible to different ligands.
- Only a small amount of reagents are required for transfer analysis.
- Multiple replicas of gel are possible.
- Prolonged storage of transferred patterns, before use, becomes possible.
- The same protein transfer can be used for multiple successive analyses

# **The Experiment**

**Western Blotting (WB)**

The technique uses three elements to accomplish this task:

A- separation by size

B- transfer to solid support

C- marking target protein using proper primary and secondary antibodies to visualize.

