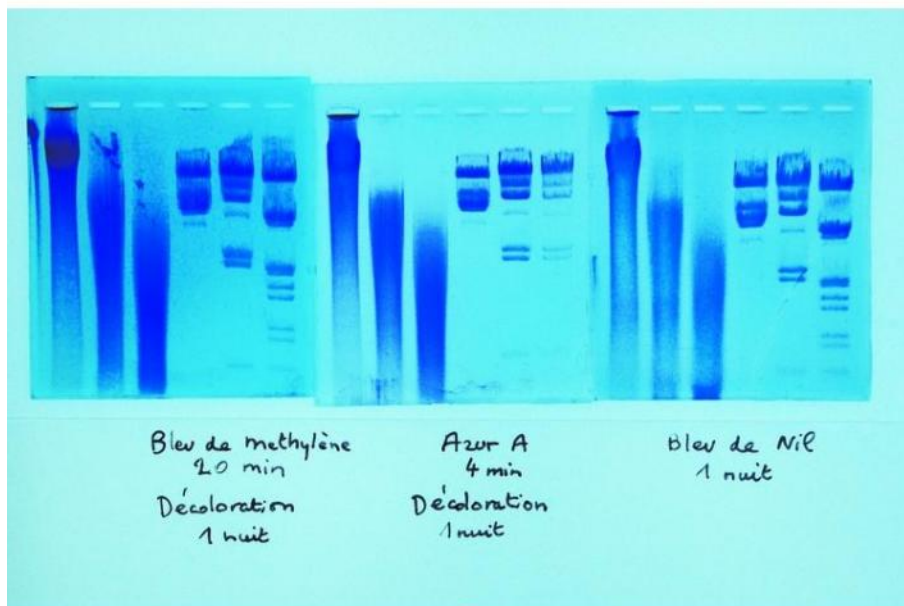


# ELECTROPHORESIS OF DNA NO. 1

References : ELECADN, ELECADNSG



## "Digestion and restriction map"

Practical objectives: PCR

Performing digestion with a restriction enzyme.

DNA deposits in the wells of an agarose gel.

Start of electrophoresis and staining of the gel.

Theoretical objectives:

Going further into the principle of DNA electrophoresis.

Interpretation of the effect of dilution and digestion on salmon DNA.

Creation of a restriction map from the bands obtained after electrophoresis of lambda phage DNA digested by 2 restriction enzymes with the aid of instructions to establish the size of the fragments in base pairs.

Composition :

To make 4 gels of 25ml

- 100ml of TAE 10 buffer x pH =8.3 to dilute 10 times to get 1,000ml of buffer
- 1.6 g of agarose (for 8 gels of 25ml)
- 25 Pasteur pipettes calibrated for deposits in wells
- 0.25ml of deposit blue

- 0.05g of freeze-dried salmon DNA
  - 50µl EcoR1 restriction enzyme
  - 125µl of a DNA solution of phage Lambda digested with EcoR1
  - 125µl of a DNA solution of phage Lambda digested with HindIII
  - 125µl of a DNA solution of phage Lambda digested with EcoR1 +HindIII
  - 10ml of sterile water
- Technical and educational instructions available on our website.

Necessary material:

- Standard DNA electrophoresis tank (photos 1) :  
for versions stained a posteriori with Azure A;  
Generator 70-110 V, 20 mA
- BlueGel tank (photos 2) : for immediate disclosure versions without additional handling  
or standard tank + Transilluminateur
- Water bath or microwave
- Gloves
- Micropipettes from 5 to 50 µl and adapted cones

Conservation: 3 months

Enzyme and DNA: in the freezer

Colour (protected from light), TAE buffer, sterile water: in the refrigerator

Reference	Tank	Dye
ELECADN	standard	Azure A
ELECADNSG	BlueGel	SafeGreen