

## PROTEIN SILVER STAIN

REFERENCE: Wray et al.

### MATERIALS:

Stain: 1.4 ml Ammonium hydroxide (use the fresh, frozen stock aliquoted in the -20° freezer)  
21.0 ml NaOH (0.36%)  
4.0 ml AgNO<sub>3</sub> (20% w/v) add dropwise  
Distilled water to 100ml

Developer: 2.5 ml citric acid (1% w/v)  
0.25 ml formaldehyde (38% v/v)  
Distilled water to 250ml

### METHOD:

1. Soak the gel overnight in 50% methanol.
2. Add fresh 50% methanol and leave in 1 hour.
3. Wash briefly in distilled water.
4. Agitate for 10 minutes in staining reagent.
5. Rinse briefly in distilled water and soak for 5 minutes in fresh distilled water.
6. Rinse again briefly in distilled water. Be careful not to let the gel get stuck to the glass dish at any point after staining step. Change to a new dish.
7. Add developer and agitate for 5 to 10 minutes.
8. When the gel achieves the desired state of staining, soak it in 50% methanol/10% acetic acid overnight to stop developing.
9. Photograph the gel before drying in case it cracks or darkens.