

# Membrane preparation

## 1. Gel preparation

Prepare 14% separation gel. (Please see the following tables for the components)

### Stacking gel: 4%

	2.2 ml
H <sub>2</sub> O	1.32 ml
0.5M Tris-HCl PH:6.8	0.55 ml
30% Acr/Bis	0.295 ml
10% SDS	22 µl
10% APS	11 µl
TEMED	2.2 µl

### Separation gel: 14%

H <sub>2</sub> O	2.1 ml
1.5M Tris-HCl PH:8.8	2.0 ml
30% Acr/Bis	3.74 ml
10% SDS	80 µl
10% APS	80 µl
TEMED	3.5 µl

## 2. Sample loading

Boil the lysates for 5 minutes. Load 10 or 20 µg onto SDS-PAGE gel per lane.

## 3. Electrophoresis

150V for 1 hour in pre-cold electrophoresis buffer.

## 4. Transfer stand by

- 1) After electrophoresis, immerse the gel in pre-cold 1 x electrical transfer buffer before electrical transfer for 10 minutes.
- 2) Activate PVDF (0.45 µm) membrane with 99.5% methanol for 15 seconds. Wash the membranes with deionized water for 3 times.
- 3) Immerse PVDF membrane, filter paper and sponge in 1 x electrical transfer buffer for 30 minutes before electrical transfer.

## 5. Transfer (wet method)

72V for 1 hour at cold condition in pre-cold electrical transfer buffer.

## 6. Wash

Wash the membrane with deionized water twice on shaking table, 10 minutes per time.

## 7. Storage

Dry the membrane. Then ready to use. For long term storage, store the membrane at 4°C.

## Solution preparation

### 1. Electrophoresis buffer

**10 x electrophoresis buffer:** Dissolve 151.425g of Tris, 720.67g of Glycine and 50g (1%) of SDS in 3.5L deionized water, and make the final volume to 5L. Store the buffer at room temperature.

**1 x electrophoresis buffer:** Dilute the buffer by 10 folds when using.

### 2. Electrical transfer buffer

**10 x transfer buffer:** Dissolve 151.425g of Tris and 720.67g of Glycine in 3.5L deionized water, and set the volume to 5L. Store the buffer at room temperature.

**1 x transfer buffer:** Add 500 ml of 10 x Transfer Buffer and 500 ml of Methanol to 4000ml deionized water.