



# PVDF Transfer Membrane for Western Blotting





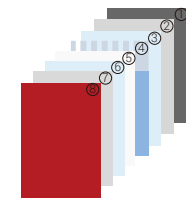
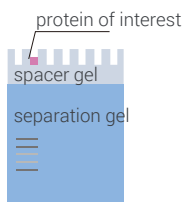
# Protein Electrophoresis and Western Blotting

Western Blotting is a method to analyze and quantify proteins. The protein is separated by gel electrophoresis to a solid phase support (PVDF membrane). Antibodies can generate antigen-antibody immune reactions with the target proteins attached to the PVDF membrane. The western blotting technology is to identify and semi quantitatively analyze a specific protein.

## Procedure of Western Blot

### Gel electrophoresis

1 In the electric field, protein solution is electrophoresed on a gel and proteins with different molecular weights are separated.



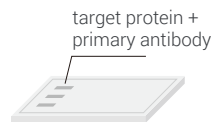
### Western blot

2 In the electric field, proteins are transferred from the gel to the PVDF membrane.

- ① cathode electrode
- ② sponge pad
- ③ filter paper
- ④ gel
- ⑤ PVDF membrane
- ⑥ filter paper
- ⑦ sponge pad
- ⑧ anode electrode

### Blocking

3 Blocking proteins conceal non-specific binding sites on PVDF membranes.

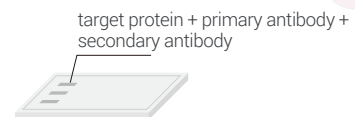


### Incubation of primary antibody

4 Primary antibody specifically binds to target protein.

### Incubation of secondary antibody

5 Secondary antibody coupled with HRP enzyme, specifically binding with primary antibody.



protein coloration

### Visual detection

6 Adding reaction substrate ECL, chemiluminescence detection.

## Immunoblotting Membrane



Cobetter PVDF transfer membranes feature high sensitivity and low background in Western blotting. The PVDF membrane is hydrophobic and needs to be prewetted by methanol. We offer pre-cut membrane sheets as well as coils. And available in 0.45  $\mu\text{m}$  for most Western blotting application and 0.2  $\mu\text{m}$  for immunoblotting of low MW proteins <15 kDa.

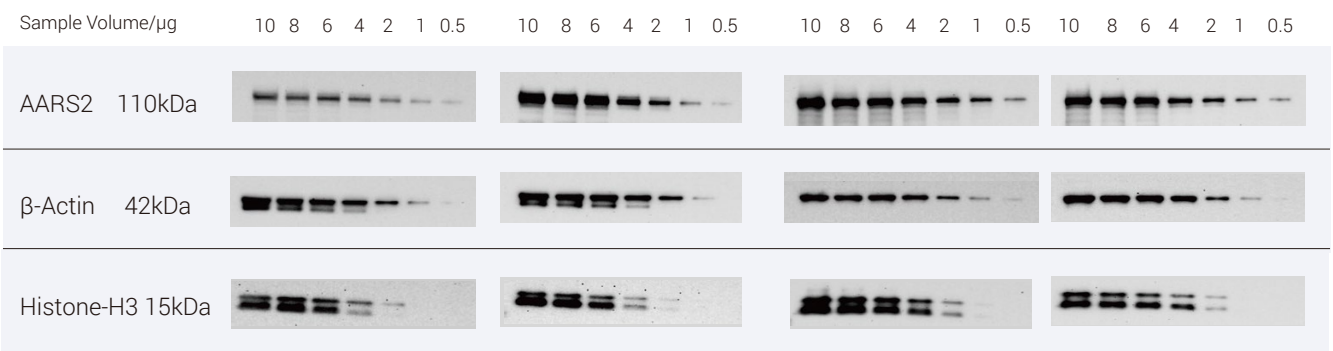
### Features

- Smooth and flat surface, won't curl or fracture when cut
- High mechanical strength, easy to be stripped and reprobed multiple times
- High sensitivity and low background

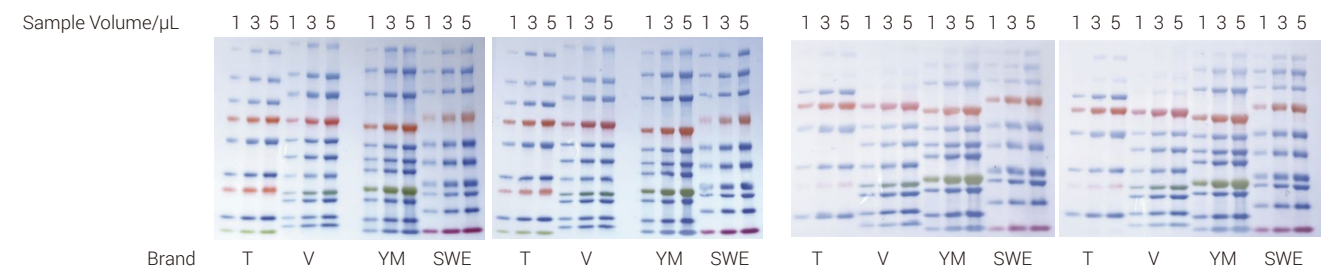
## PVDF Transfer Membrane Performance

Brand	Brand M 0.2 $\mu\text{m}$	Cobetter 0.2 $\mu\text{m}$	Brand M 0.45 $\mu\text{m}$	Cobetter 0.45 $\mu\text{m}$
Model	/	3550YH	/	2770H
Membrane	PVDF	PVDF	PVDF	PVDF
Thickness ( $\mu\text{m}$ )	200	130	130	125
Applications	immunoblotting of low MW proteins <15 kDa		for most Western blotting applications	
Detection Methods	Chemiluminescence		Chemiluminescence	

### Validation of Chemiluminescent Substrate Development for Internal Reference Bands

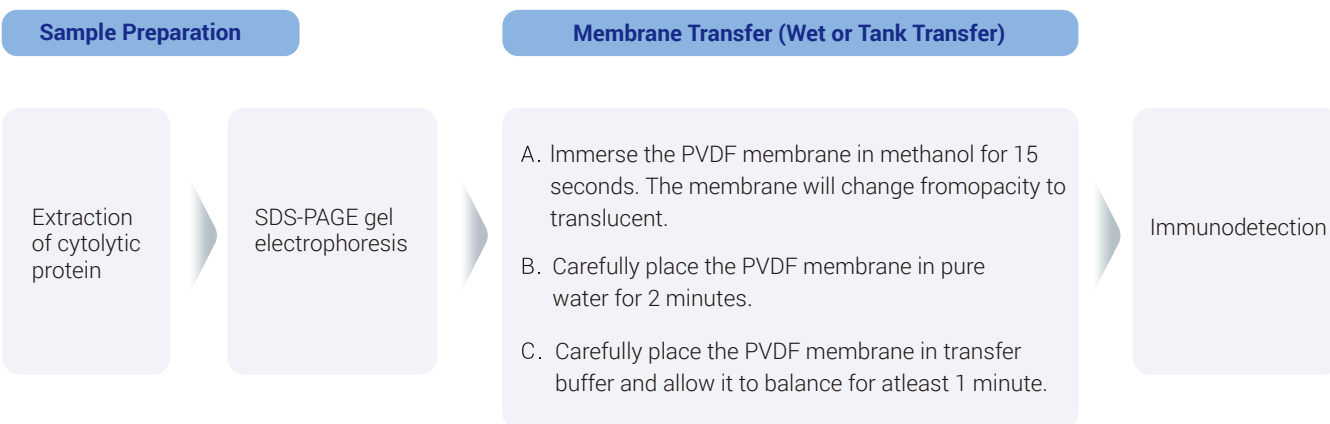


### Validation of Commonly Used Marker Chromogenic Effects



## Selection Guide of Cobetter PVDF Transfer Membrane

### Western Blot Procedure



### Precautions

- Prevent bubbles from entering into the filter paper, gel or membrane.
- For samples containing small peptides, the equilibrium time of the gel in the transfer buffer should be limited to 10 minutes.
- When the target protein is less than or equal to 15 kDa, 0.2  $\mu\text{m}$  PVDF membrane can be used to obtain the maximum retention.
- This product is only used for scientific research by professionals, and shall not be used for clinical diagnosis or treatment, food or medicine.
- For your safety and health, please wear lab clothes and disposable gloves.

Part No.	Membrane	Pore size	Size	Qty / pk
3550YH-R2703	Hydrophobic PVDF	0.2 $\mu\text{m}$	27.5 cm x 3.75 m	1 roll
3550YH-F150	Hydrophobic PVDF	0.2 $\mu\text{m}$	15 x 15 cm	50 pcs
3550YH-F200	Hydrophobic PVDF	0.2 $\mu\text{m}$	20 x 20 cm	50 pcs
3550YH-F8470	Hydrophobic PVDF	0.2 $\mu\text{m}$	8.4 x 7 cm	50 pcs
2770H-R2703	Hydrophobic PVDF	0.45 $\mu\text{m}$	27.5 cm x 3.75 m	1 roll
2770H-F150	Hydrophobic PVDF	0.45 $\mu\text{m}$	15 x 15 cm	50 pcs
2770H-F200	Hydrophobic PVDF	0.45 $\mu\text{m}$	20 x 20 cm	50 pcs
2770H-F8470	Hydrophobic PVDF	0.45 $\mu\text{m}$	8.4 x 7 cm	50 pcs

\* More sizes can be customized.

## Cellulose Filter Paper for Western Blot



Western Blotting filter papers are made of high-quality cotton cellulose fiber without any additives of any kind, features a uniform texture and smooth surface. They are produced with ultrapure water which contains no impurities and minimizes background signal. Cobetter offers pre-cut sheets for direct use in doing Southern, Northern, and Western transfers, including wet transfer and semi-dry transfer methods. With a medium thickness of 380  $\mu\text{m}$  and dimensions of 7.5  $\times$  8.4 cm, it is compatible with standard transfer apparatuses and easy to operate. These western blotting filter paper facilitates efficient and rapid transfer of protein molecules from gel to membrane.

## Specifications

<b>Material</b>	Cotton Cellulose
<b>Application</b>	Western Blotting Filter Paper
<b>Wettability</b>	Hydrophilic
<b>Thickness</b>	0.38 mm 0.85 mm
<b>Dimensions</b>	7.5 x 8.4 cm 20 x 20 cm
<b>Package</b>	Pack of 100 or Pack of 20

## Features

- Convenient : pre-cut sheets to save time
- Standard size : compatible with most minigel transfer assemblies
- Tested : compatible with alcohol or other organic solvents commonly used in protein transfer applications

Part No.	Thickness	Size	Qty/pk
CF-04-F8475	Filter Paper, 0.38 mm	7.5 x 8.4 cm	50
CF-04-F200200	Filter Paper, 0.38 mm	20 x 20 cm	20
CF-08-F8475	Filter Paper, 0.85 mm	7.5 x 8.4 cm	50
CF-08-F200200	Filter Paper, 0.85 mm	20 x 20 cm	20



Hangzhou Cobetter Filtration Equipment Co.,Ltd.

Sales Add Floor 6, Building 1, Cobetter Sci-Tech Innovation Center, No. 699 Mingxing Road, Beigan Street, Xiaoshan District, Hangzhou City, Zhejiang Province, China

Factory Cobetter Park, Heshang New Material Industry Park, Xiaoshan District, Hangzhou 311265, China

Tel +86 400-070-4266

Fax +86 571-87704256

Website [www.cobetter.com](http://www.cobetter.com)