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PVDF blotting membrane

PVDF0.2S *PVDF0.2R* *PVDF0.45S* *PVDF0.45R*

Introduction

PVDF (Polyvinylidene Fluoride) blotting membrane is a uniform, naturally hydrophobic support matrix with specially designed porous structure and binding sites that makes it ideal for protein binding. PVDF membranes offers much higher protein binding capacities than nitrocellulose and binds even the most difficult-to-bind proteins such as glycoproteins.

Additionally, the membrane has the ability to bind protein over a wide range of molecular weights while preventing 'blow-through', thus allowing the user to get higher intensity signals even with low protein concentrations.

PVDF binding membranes are produced under controlled conditions through validated processes to exhibit high chemical resistance making it very suitable for life sciences applications such as Western blotting, dot/slot blotting and N-Terminal Sequencing.

Specifications

Membrane
Polyvinylidene Fluoride

Pore size
0.2 µm; 0.45 µm

Colour
White

Thickness
130 µm

Protein binding Capacity (BSA)
0.2 µm: 200 µg/cm2
0.45 µm: 190 µg/cm2

Applications

- Protein Transfer
- Ideal support matrix for protein
- High Performance Western Blotting
- Protein staining, glycolipid detection and Immunoblotting
- Dot and slot blots
- N-terminal Sequencing

Recommendation Chart

BIOMOLECULES	
Nucleic Acid	NR
Proteins	R
TRANSFER METHOD	
Dot Blot	R
Colony or Plaque Lift	NR
Electrotransfer	HR
Capillary Blot	R
Vacuum Blot	R
Alkaline Transfer	R
MOLECULE FIXATION	
Baking	NR
Drying	R
UV Crosslinking	R
Alkali Fixation	R
Molecule Removal	R
DETECTION METHOD	
Colorimetric	R
Radiolabelled	R
Luminescence	R
Fluorescence	R
Staining	R
REPROBING	
Once	R
Multiple	R

HR - Highly recommended
R - Recommended
NR - Not recommended

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Protocol

N.B. Activate the PVDF membrane in Methanol or alternative organic solvent: The hydrophobicity of PDVF makes it impossible to wet the membrane in aqueous solutions. Therefore, methanol is required to pre-wet the membrane prior equilibration in transfer buffer.

Always handle the membrane using gloves or forceps to prevent contamination!

1. Immerse the membrane slowly at a 45° angle to prevent trapped bubbles in 100% Methanol until the membrane is fully covered. Wait for few seconds making sure that the entire membrane is fully immerged until it becomes translucent.
2. Transfer the wet membrane into a box containing transfer buffer and equilibrate at room temperature shaking for approximately 5 minutes. The membrane will float on the surface of the buffer until completely equilibrated.
   Once equilibrated it will easily submerge into the aqueous buffer solution. The membrane is now ready to bind proteins in any blotting applications.
3. **After the membrane has been wetted with buffer, do not allow it to dry** (white spots will form where the membrane is dry). Proteins will not bind to the dried membrane, and dry spots will not rewet in aqueous solutions. If the membrane becomes dry prior to blotting, repeat steps 1 and 2 to rewet it.

Special Features

- High binding capacities of proteins
- Minimum background: High signal to noise ratio
- Remain Flexible and non-brittle after processing
- High chemical resistance
- Higher mechanical strength facilitating multiple re-probing
- Maximum capture of proteins during transfer minimizing sample loss

Packing size

PVDF0.2S	25 sheets 20cm x 20cm 0.2 µm	PVDF0.45S	25 sheets 20cm x 20cm 0.45 µm
PVDF0.2R	24cm x 3m roll 0.2 µm	PVDF0.45R	24cm x 3m roll 0.45 µm