invitrogen™

Invitrolon™ PVDF and 0.2 µm PVDF Membranes

Catalog nos. LC2005 and LC2002

Description

Introduction

For amino acid analysis and protein sequencing of small amounts of proteins (as little as 10 pmoles), electroblotting onto polyvinylidene difluoride (PVDF) membranes is ideal. In addition, PVDF membranes can be used for immunoblotting (western blot analysis). While our 0.2 µm PVDF membrane performs well for all of these applications, Invitrolon™ PVDF is a high quality, 0.45 µm PVDF membrane particularly suitable for high sensitivity and low background immunoblotting.

Specifications

Refer to the table below for the specifications of each type of PVDF membrane.

Specifications	Invitrolon™ PVDF	0.2 µm PVDF
Catalog no.	LC2005 (20 transfers)	LC2002 (20 transfers)
Quantity	20 membrane/filter paper sandwiches	20 membrane/filter paper sandwiches
Pore Size	0.45 µm	0.2 µm
Dimensions	8.3 cm x 7.3 cm	8.3 cm x 7.3 cm
Binding Capacity	Goat IgG: 294 µg/cm^2 BSA: 131 µg/cm^2 Insulin: 85 µg/cm^2	50-150 µg/cm^2 for large, globular proteins >150 µg/cm^2 for smaller peptides
Application	Optimal Western Transfers for Proteins > 10 kDa Protein Sequencing Amino Acid Analysis	Other Western Transfers Protein Sequencing Amino Acid Analysis Solid Phase Assay Systems
Re-probe Characteristics	Yes	Yes

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Using PVDF Membranes

Introduction

Use the procedure below to prepare PVDF membranes for protein transfer (electroblotting).

Basic Procedure

Note that the PVDF membrane is supplied between two pieces of pre-cut 3 MM filter paper. The filter paper may be used as part of the blot 'sandwich'.

All washes are performed in a shallow dish with constant shaking.

1. Wet the PVDF membrane in 100% alcohol (methanol, ethanol, or isopropanol).
2. Drain and equilibrate the membrane and filter paper for 5 minutes in the desired transfer buffer.
3. Assemble the blot 'sandwich' according to the instructions provided by the manufacturer of your blot apparatus and transfer.
4. After transfer, rinse the PVDF membrane with water and proceed to immunoblotting (see below), staining (see below), or drying.

Immunoblotting

If you are using the WesternBreeze® Immunodetection Kit from Invitrogen for immunoblotting, refer to the appropriate WesternBreeze® manual for details on blocking and detection of the protein. For more information on the WesternBreeze® Immunodetection Kit, visit our web site at www.invitrogen.com or contact Technical Service (see next page).

If you are using any other immunodetection kit, follow the manufacturers recommendations.

Staining

Stain PVDF membranes using SimplyBlue™ SafeStain, Coomassie® Blue R, Amido Black, or Ponceau S. Refer to the table below for instructions. Use 10-20 ml of each stain.

Stain	Concentration	Staining	Destaining I	Destaining II (Optional)
SimplyBlue™	Use as supplied	1-2 minutes*	3 x 1 minute in deionized water	--
Coomassie® Blue R	0.1% in 40% ethanol, 10% acetic acid	10 minutes	10 minutes in 40% ethanol, 10% acetic acid.	10 minutes in 90% ethanol, 5% acetic acid
Amido Black	0.1% in 10% ethanol, 2% acetic acid	10 minutes	10 minutes in 10% ethanol, 2% acetic acid	10 minutes in 90% ethanol, 2% acetic acid
Ponceau S	0.5% in 1% acetic acid	10 minutes	10 minutes in 1% acetic acid	--

*Incubation of dry PVDF membranes in SimplyBlue™ for longer than 2 minutes results in high background.

Product Qualification

Quality Control

Product qualification is described in the Certificate of Analysis (CofA), available on our website by product lot number at www.invitrogen.com/cofa.

Limited Warranty

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