Low Fluorescence PVDF Membranes

Catalog Numbers 678000, 678001, 678002, 678003, 678004

Pub. No. MAN1001446 Rev. A

WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from **thermofisher.com/support**.

Product description

Invitrogen™ Low Fluorescence PVDF Membranes are designed to provide exceptional performance in western blot, fluorescent total protein normalization, and dot blot applications. These membranes are optimized to ensure efficient protein binding with minimal auto-fluorescence across a wide range of excitation wavelengths (280-800 nm). Their low-fluorescence properties provide enhanced multiplexing options, higher signal-to-noise ratios, and improved detection limits across a broader spectrum of fluorescent dyes compared to nitrocellulose membranes, standard PVDF membranes, and many other low-fluorescence PVDF membranes.

Table 1 Available products

Cat. No.	Product name
678000	Low Fluorescence PVDF Transfer Membrane Roll, 8.3 cm × 10 m
678001	Low Fluorescence PVDF/Filter Paper Sandwiches, Mini 8.3 × 7.3 cm
678002	Low Fluorescence PVDF/Filter Paper Sandwiches, Midi 13.5 × 8.3 cm
678003	Low Fluorescence PVDF Pre-cut Sheets, Mini 8.3 × 7.3 cm
678004	Low Fluorescence PVDF Pre-cut Sheets, Midi 13.5 × 8.3 cm

Required materials not supplied

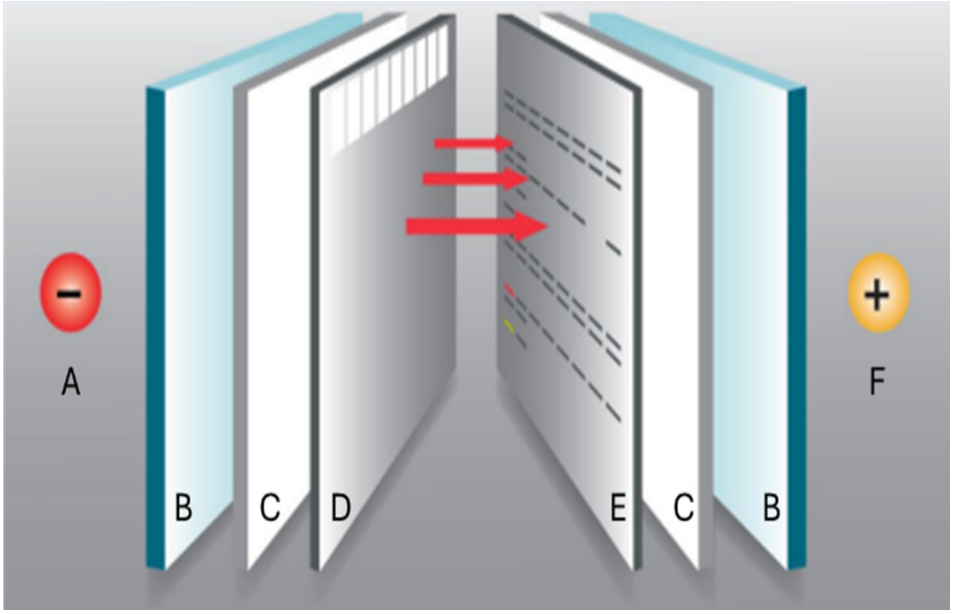
- 100% methanol or ethanol
- Transfer system and power supply
- Transfer buffer compatible with selected gel chemistry (see **Transfer Buffers for Western Blotting | Thermo Fisher Scientific - US**)
- Western blotting filter paper if using stand-alone membranes (Cat. No. 678000, 678003, and 678004)
- Electrophoresed protein gel

Before you begin

- Always wear gloves when handling PVDF membranes to prevent natural oils from causing improper wetting, transfer inconsistencies, and high membrane background.
- Follow manufacturer's transfer protocol and recommendations to ensure the most efficient transfer.
- Ensure proper membrane hydration and carefully roll the transfer stack to eliminate air bubbles and excess buffer between the electrophoresed gel and membrane.

Prepare membrane for immunoblotting process

1. Remove the gel from the electrophoresis apparatus and prepare it for transfer by washing and equilibrating according to the manufacturer's transfer system instructions.
2. Select a membrane size that corresponds to gel size. If using a membrane roll, cut the membrane to fit the gel's dimensions.
3. Wet the membrane in 100% methanol or ethanol for 3 minutes, ensuring there are no dry areas that could inhibit protein transfer.
4. Briefly rinse the membrane in deionized water to remove alcohol, then equilibrate in transfer buffer for several minutes according to the manufacturer's instructions.
5. Assemble the transfer stack in the following component order, following the transfer system instructions.



- **A**: Cathode Core
- **B**: Sponge Pad
- **C**: Filter Paper
- **D**: Electrophoresed Protein Gel
- **E**: PVDF Membrane
- **C**: Filter Paper
- **B**: Sponge Pad
- **F**: Anode Core

Figure 1 Transfer stack component assembly

6. Connect the leads and perform the transfer under appropriate conditions.
7. When the transfer is complete, disconnect the leads and disassemble the transfer stack to remove the membrane.
8. Keep the membrane hydrated throughout the immunoblotting process.

Note: If the membrane dries, rehydrate it for 3 minutes in 100% methanol or ethanol, rinse with distilled water, and then continue with the immunoblotting protocol.

Related products

Cat. No.	Product name
84783	Western Blotting Filter Paper, 0.83 mm thick, 7 × 8.4 cm
37565	Blocker™FL Fluorescent Blocking Buffer (10X)
A44449	No-Stain™ Protein Labeling Reagent, 0.5 mL
LC5615	iBright™ Prestained Protein Ladder
LC2570	Fluorescent Compatible Sample Buffer (4X, non-reducing)
NW04122BOX	Bolt™ Bis-Tris Plus Mini Protein Gels, 4-12%, 1.0 mm, WedgeWell™ format
BT00061	Bolt™ Transfer Buffer (20X)
46641	SuperSignal™ Western Blot Enhancer
62300	Restore™ Fluorescent Western Blot Stripping Buffer
A32731	Goat anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ Plus 488

Thermo Fisher Scientific | 3747 N. Meridian Road | Rockford, Illinois 61101 USA
For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

Revision history: Pub. No. MAN1001446 A

Revision	Date	Description
A	9 March 2025	New document for Low Fluorescence PVDF Membranes.