

# Clear Blot P plus Membrane Instruction Manual

November 28, 2025, 7th edition

## 1. Precautions for safe use of this product

To use this product safely, please read this instruction manual carefully first. Please refrain from operating the product until you fully understand the contents of this instruction manual. This instruction manual describes only how to use this product for the specified purpose. Please refrain from using the product for purposes or in ways not described in this instruction manual. If you use the product for purposes or in ways not described in this instruction manual, you are solely responsible for all necessary safety measures and unforeseen circumstances. Also, please carefully read and understand the instruction manuals of any devices you will be using at the same time.

## 2. Purpose of use

This product is a PVDF membrane designed for protein blotting, optimized for use with chemiluminescent and calorimetric detection methods.

## 3. Product configuration

Product No.	Size	Package
WSE-4050 2322450	65 mm x 65 mm	0 sheets/Box
WSE-4051 2322451	85 mm x 90 mm	20 sheets/Box
WSE-4052 2322452	130 mm x 140 mm	10 sheets/Box
WSE-4053 2322453	260 mm x 3.3 m	1 roll/Box
WSE-4054 2322454	Membrane: 145 mm x 85 mm Filters: 145 mm x 85 mm	6 sheets/Box 36 sheets/Box

(1) Clear Blot P plus Membrane, 1 box

(2) Instruction Manual, 1 sheet

\* Only the WSE-4054 model includes pre-cut filter papers. Filter papers for other sizes are sold separately.

## 4. Storage

- Avoid high temperatures, high humidity, direct sunlight, and insect intrusion. Store at room temperature (15°C–30°C).
- Avoid exposure to water.
- Recommended environmental conditions:  
Temperature: 15°C–30°C  
Humidity: <80%

## 5. Disposal method

- Dispose of each reagent in accordance with the disposal method of your affiliated institution.

- Materials  
Membrane: PVDF (Polyvinylidene Difluoride)  
Interleaving paper (spacer paper): Cellulose  
Resealable bag: Polyethylene

## 6. Items required other than this product

- Methanol
- Blotting buffer

### Warning

When using methanol, protect yourself with goggles, gloves, a lab coat, and other appropriate protective equipment, and follow the handling precautions provided with the reagent.

## 7. Precautions for use

- When handling this product, wear gloves or use tweezers. Direct contact with the membrane may transfer oils or proteins from your hands, which can interfere with detection.
- There is no front or back side to the membrane.
- The membrane requires methanol pre-treatment before use in Western blotting.
- Use clean containers when handling the membrane.
- Membrane is not suitable for fluorescent detection because it emits light when irradiated with UV.

## 8. How to use

### A. Membrane pre-treatment (Methanol treatment)

1. Pour methanol into a container for pre-treatment.
2. Slowly immerse the membrane in methanol from one edge. Let it stand for approximately 15 seconds.
3. Prepare another container with blotting buffer, filling it to a depth of about 1 cm.
4. Remove the membrane from methanol and immerse it in the prepared blotting buffer.
5. Adjust the speed so that the membrane sinks into the buffer, and gently agitate for 5–15 minutes, exchanging the methanol for blotting buffer

### B. Semi-dry Western Blotting

The following procedure is for the semi-dry method. The method differs for tank-type blotting. For detailed instructions, please refer to the manuals of the blotting apparatus and blotting reagents. For detection methods, refer to relevant references or publications.

1. Prepare blotting buffer in a container and immerse the required number of filter papers.
2. Place filter paper on the lower electrode plate (anode).
3. Place the pre-treated membrane on top of the filter paper.
4. Place the gel, after electrophoresis, on top of the membrane.
5. Place filter paper on top of the gel.
6. Place the upper electrode plate (cathode) on top of the filter paper.
7. Connect the blotting apparatus and power supply with the lead and apply current to perform blotting.
8. Stop the current, remove the membrane, and proceed with detection.

#### **C. Dry storage of membranes after blotting**

If detection is not performed immediately after blotting, the blotted membrane can be stored in a dry state.

1. Rinse the blotted membrane with TBS-T or TBS for approximately 10 seconds.
2. Sandwich the membrane between clean filter paper or paper towels to absorb surface moisture.
3. Allow the membrane to dry completely at room temperature for 1–2 hours on filter paper or dry it using a gentle stream of cool air.

4. Once completely dry, sandwich the membrane between clean filter paper and seal it in a resealable plastic bag or plastic wrap.
5. Considering the stability of the blotted samples, store the membrane at an appropriate temperature: room temperature, refrigerated, or frozen.

When storing frozen, handle with care, as mechanical shock may damage the membrane. Place the membrane in a protective box or similar container.

#### **D. Dry Storage of Membranes After Blotting**

1. Remove the membrane from storage and allow it to return to room temperature.
2. Take the membrane out of the plastic bag and immerse the entire surface in methanol for a few seconds.  
\* If handling multiple membranes, process them one at a time and do not stack them during treatment.
3. Remove the membrane from methanol and gently agitate it, exchanging the methanol for TBS-T or TBS.

After this step, proceed with the usual detection procedures.

#### **Related Product**

Product code	Product No.	Product name	Package
2322505	WSE-4060	Clear Blot P Membrane (Low Fluorescence) 65 mm x 65 mm	10 sheets/Box
2392506	WSE-4061	Clear Blot P Membrane (Low Fluorescence) 85 mm x 90 mm	10 sheets/Box
2322508	WSE-4063	Clear Blot P Membrane (Low Fluorescence) 260 mm x 3.3 m	1 roll/Box
2322507	WSE-4064	Clear Blot P Membrane (Low Fluorescence) 145 mm x 85 mm With filter paper (same size, 36 sheets)	6 sheets/Box
2322437	CB-06A	Absorbent paper 65 mm x 65 mm	400 sheets/Box
2392393	CB-09A	Absorbent paper 85 mm x 90 mm	400 sheets/Box
2322436	CB-13A	Absorbent paper 130 mm x 140 mm	200 sheets/Box 2 box/pk
2392493	CB-20A	Absorbent paper 200 mm x 200 mm	100 sheets/Box



**ATTO CORPORATION**

3-2-2 Motoasakusa, Taito-ku, Tokyo 111-0041, JAPAN

<https://www.attoeng.com/>



Contact