

WSE-4050  
WSE-4051  
WSE-4052  
WSE-4053

# Clear Blot Membrane-P plus

## Instruction Manual

Nov. 24th, 2023 Ver. 3

### 1. Safety precaution

Before using this product, read this instruction manual thoroughly at first. Do not start the operation until you understand the contents of manual. Also, this document describes only method used for specified purpose with this product. Do not use this product for any purpose or by any method other than described here. If you use this product for any purpose or by any method other than described in this manual, you will be held responsible for any necessary safety measures as operator. Additionally, read manual of the equipment you use simultaneously.

### 2. Application

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

### 3. Component

- ① P plus membrane 1 box
- ② Instruction Manual 1 copy

| Product No. | Size            | Package       |
|-------------|-----------------|---------------|
| WSE-4050    | 65 mm x 65 mm   | 20 sheets/Box |
| WSE-4051    | 85 mm x 90 mm   | 20 sheets/Box |
| WSE-4052    | 130 mm x 140 mm | 10 sheets/Box |
| WSE-4053    | 260 mm x 3 m    | 1 Roll/Box    |

### 4. Storage

- Prevent from high temperature, high humidity, direct sunlight and harmful insect. Keep the product at room temperature.
- Be careful to keep dry.
- Desiccant is attached to the product (except WSE-4053). Do not remove it even after unpacking. Keep the product with it.
- Recommended environmental condition  
Temperature : 15°C~30°C Humidity : <80%

### 5. Disposal method

- Conform to disposal method of the organization you belong to.
- Material

Membrane : PVDF (PolyVinylidene DiFluoride)

Inserting paper (Spacer) : Cellulose

Plastic bag : Polyethylene

Desiccant : Cellulose, Calcium chloride

### 6. Necessary things other than this product



- Methanol
- Blotting buffer

#### Caution

In the case of using methanol, protect your body with goggles, gloves, white clothing and so on. Also follow precaution of reagent concerning handling.

### 7. Precaution for use

- Put gloves on or utilize a tweezers for using this product. If you touch it directly, lipid or protein of hand may be attached and disturb detection.
- Membrane doesn't have a distinction between front and back sides.
- Before using membrane for western blotting, preparation with methanol is needed.
- Use clean container for membrane.
- Membrane is not suitable for fluorescent detection because it emits light when irradiated with UV.

### 8. Usage

#### A. Preparation of membrane (Methanol processing)

1. Put methanol in a container.
2. Immerse membrane in methanol slowly from the edge, and leave it for about 15 seconds.
3. Put blotting buffer in another container up to 1 cm of height.
4. Take membrane out from methanol and immerse it in blotting buffer.
5. Adjust speed of shaker for sinking membrane in buffer and shake it for 5-15 min to exchange liquid.

#### B. Semi-dry western blotting

This chapter explains the method of semi-dry blotting. Method of tank blotting is different from

it.

Please read instruction manual of blotting system and reagent for detailed operation method.

Also, please refer to documents and articles for detection method.

1. Put blotting buffer in a container and immerse necessary number of filters in it.
2. Place filters on lower electrode (anode).
3. Put prepared membrane on filters.
4. Put electrophoresed gel on membrane.
5. Put filters on the gel.
6. Put upper electrode (cathode) on the filters.
7. Connect blotting system to power supply with lead wires and start operation (blotting).
8. Stop supplying electricity and take membrane out.

#### C. Dry storage after blotting

If detection is not performed soon after blotting, membrane after blotting can be stored.

1. Rinse membrane after blotting with TBS-T or TBS for about 10 seconds.
2. Put it between clean filters or paper towels for absorbing moisture from the surface.
3. On a filter, dry it by natural drying for 1-2 hours or by forced drying with cool wind.

Dry it completely.

4. Put dried membrane between clean filters and seal it up in cellophane or plastic bag.
5. Store it at suitable temperature for stability of sample blotted to membrane.

In the case of freezing, be careful of mechanical shock. Put it in refrigerating box for preventing from damage.

#### D. Detection of membrane stored by drying

1. Take membrane out from storage space and bring it back to room temperature.
2. Take membrane out from plastic bag and immerse the whole of it in methanol for several seconds.  
If some membranes are handled, operate one by one. Do not put it on another.
3. Take membrane out from methanol and shake it in TBS-T or TBS for exchanging liquid. After that, perform normal operation for detection.

#### Related Product

| Product code | Product number | Product name                    | Package                     |
|--------------|----------------|---------------------------------|-----------------------------|
| 2322450      | WSE-4050       | P plus membrane 65 mm x 65 mm   | 20 sheets/Box               |
| 2392451      | WSE-4051       | P plus membrane 85 mm x 90 mm   | 20 sheets/Box               |
| 2322452      | WSE-4052       | P plus membrane 130 mm x 140 mm | 10 sheets/Box               |
| 2322453      | WSE-4053       | P plus membrane 260 mm x 3 m    | 1 roll /Box                 |
| 2322437      | CB-06A         | Filter paper 65 mm x 65 mm      | 400 sheets/Box              |
| 2392393      | CB-09A         | Filter paper 85 mm x 90 mm      | 400 sheets/Box              |
| 2322436      | CB-13A         | Filter paper 130 mm x 140 mm    | 100 sheets/Box<br>2 box set |
| 2392493      | CB-20A         | Filter paper 200mm x 200mm      | 100 sheets/Box              |



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