XPAGE™ Precast Protein Gel

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1. Product Description

ACE's newly launched XPAGE™ Precast Protein Gel is a high-quality, high-performance mini polyacrylamide gel. This precast gel utilizes a Bis-Tris gel buffer system, which offers stronger buffering capacity compared to conventional Tris-Glycine systems. The XPAGE™ Precast Protein Gel can be used with either MOPS or MES electrophoresis buffers (refer to the gel separation range table for buffer selection), enabling efficient and reliable protein separation for subsequent staining or WB detection. The XPAGE™ Precast Protein Gel is available in various concentrations, including: gradient concentration 4-12%, and fixed concentrations of 8%, 10%, and 12%. Each concentration option comes in three well formats: 10-well, 12-well, and 15-well. Plate dimensions: 100 × 80 × 4.5 mm (Length × Width × Height); gel dimensions: 85 × 70 × 1.0 mm (Length × Width × Thickness).

major advantage:

① Compatible with both MOPS and MES electrophoresis buffers, offering a broader separation range.
② Electrophoresis using MES buffer yields superior separation for low molecular weight proteins.
③ Ready-to-use, eliminating the need for self-preparation of solutions and Gel liquid perfusion, saving valuable time.
④ Safe and reliable, with no exposure to toxic or hazardous reagents.
⑤ Strong compatibility: suitable for most mini gel electrophoresis tanks.
⑥ High resolution: protein bands are sharper and more uniform.
⑦ Consistent results: Automated, large-scale production ensures excellent reproducibility and stable quality across every gel.

2. Gel Separation Range

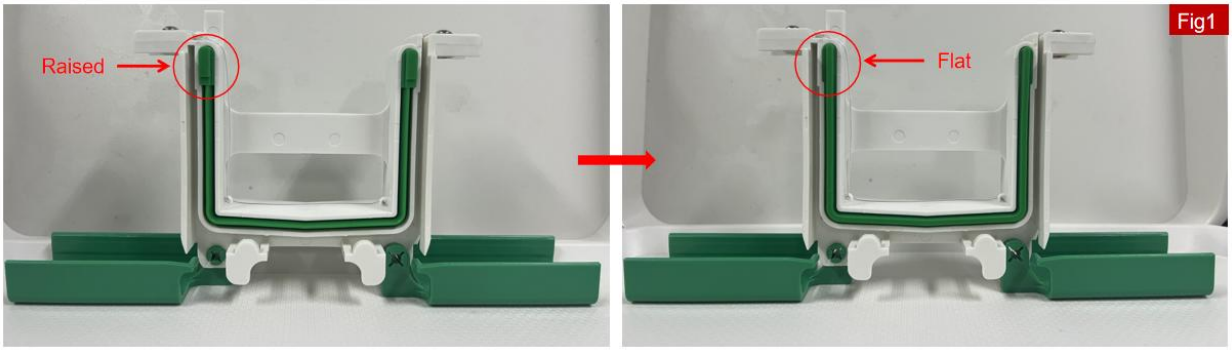
3.Operation Procedure

3.1 Preparation of Electrophoresis Buffer

Take one packet of electrophoresis buffer powder and stir until completely dissolved in 1 L of deionized water. The prepared solution can be used for subsequent electrophoresis.

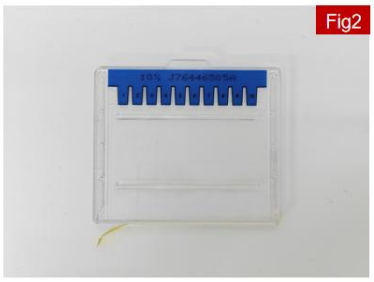
3.2 Preparation of Electrophoresis Tank

When using an electrophoresis tank with a raised silicone gasket (e.g., brands such as Bio-Rad or WIX), remove the green silicone gasket from the inner frame of the tank. Position it with the flat side (Figure 1) facing outward and reinsert it into the groove of the inner frame.

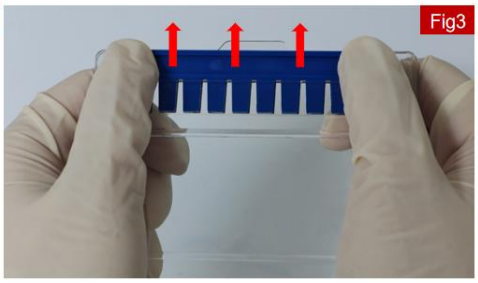


3.3 Preparing the Precast Gel

Remove the precast gel from the packaging bag. First, peel off the golden tape at the bottom of the gel plate (Figure 2). Then, gently lift the left, right, and middle parts of the comb slightly upward to separate the comb teeth from the gel. Afterward, smoothly push the comb out of the gel plate in the direction shown in the diagram (Figure 3). Once the comb is removed, ensure that the loading wells are neat before proceeding with sample loading (Figure 4).



Peel off the sealing tape at the bottom of the gel cassette

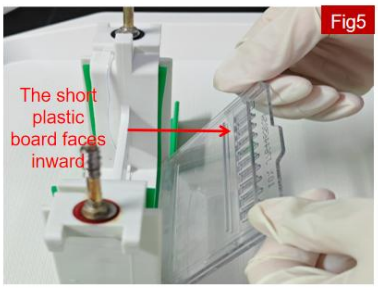


Gently remove the comb from the gel cassette

The precast protein gel is ready

3.4 Installing Precast Gels

Mount the prepared precast gels into the electrophoresis unit (Figure 5). Fill the inner chamber of the electrophoresis tank completely with electrophoresis buffer. For the outer chamber, add electrophoresis buffer to a level slightly lower than the inner chamber (for 4 gels) or to the halfway mark of the tank (for 2 gels). Ensure the buffer does not submerge the gel plates (Figure 6). Use a syringe or other suitable tool to draw an appropriate amount of 1× electrophoresis buffer and gently flush the sample wells to remove any bubbles and residual storage buffer.

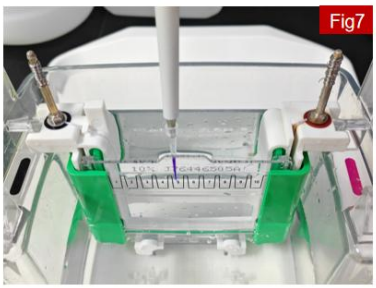


Install the adhesive plate in the core of the electrophoresis tank

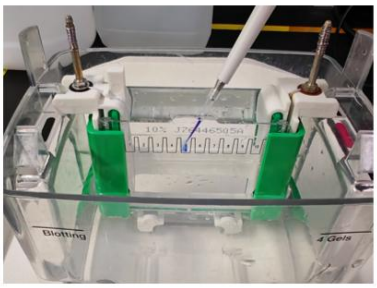
Add to the protein electrophoresis running buffer

3.5 Protein Loading

Use a pipette to aspirate the treated protein samples, then vertically insert the pipette tip into the loading well for sample loading (Figure 7).



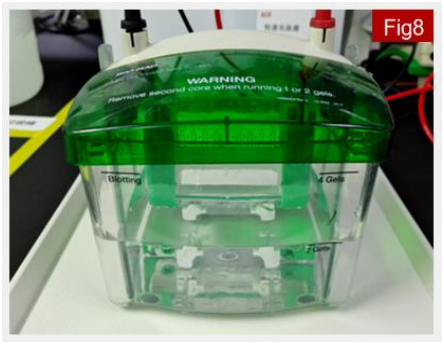
The correct operation for adding samples



The operation of adding samples incorrectly

3.6 Protein Electrophoresis

After loading the samples, place the lid on the electrophoresis tank and connect the tank to the power supply using the power cord. The recommended electrophoresis conditions are 160V for 35-50 minutes, with the maximum voltage not exceeding 180V (Figure 8).



3.7 Remove the gel from the plate

①Once the electrophoresis is finished, remove the gel plate from the apparatus.

②Open the gel cassette by carefully inserting the opener into the gap between the two plates.

③Wiggle the opener up and down gently and repeat the operations until the two plates are completely separated（Fig9).

④Upon opening, gel may sit on either side of the cassette. Remove and discard the plate without the gel, and loosen the gel from the other plate with water and gently remove.

Upper middle lower

4. Precautions

4.1The golden tape at the bottom of the gel plate must be completely removed; otherwise,it will affect the normal operation of electrophoresis.

4.2 When removing the comb, try to avoid leaving residual liquid or air bubbles in the wells. Alternatively, a syringe or other tool can be used to draw an appropriate amount of 1× running buffer to gently rinse the wells clean.

4.3 It is recommended to use the compatible MOPS/MES-SDS Running Buffer. The running buffer is recommended for no more than 3 uses. Do not use Tris-Glycine electrophoresis buffer, as it is incompatible with the XPAGE™ protein precast gel buffer system.

4.4 The recommended electrophoresis conditions are 160V for 35-50 minutes. The actual electrophoresis time depends on factors such as the number of times the running buffer has been used and the concentration of the protein gel; adjustments can be made accordingly.

4.5 After opening the gel plate, the gel might adhere to either side of the plates. Immerse the plate with the attached gel in water, tilt it gently against the water surface, and the gel will detach and fall into the water.

4.6 The gel is compatible with mainstream mini electrophoresis tanks on the market, such as those from Bio-Rad, Tanon, Liuyi, and Junyi Dongfang.

4.7 Store this product at 2-8°C. The shelf life is 12 months. Do not store at temperatures below 0°C.
4.8 For your safety and health, please wear a lab coat, disposable gloves, and a mask during operation.
4.9 This product is for research use only.

5. Related Products

Product	Cat.No.	Size
XPAGE™ 8% 10 Wells	X10008Gel	10 PCs/Box
	X10008LGel	25 PCs/Box
XPAGE™ 8% 12 Wells	X12008Gel	10 PCs/Box
	X12008LGel	25 PCs/Box
XPAGE™ 8% 15Wells	X15008Gel	10 PCs/Box
	X15008LGel	25 PCs/Box
XPAGE™ 10% 10Wells	X10010Gel	10 PCs/Box
	X10010LGel	25 PCs/Box
XPAGE™ 10% 12Wells	X12010Gel	10 PCs/Box
	X12010LGel	25 PCs/Box
XPAGE™ 10% 15Wells	X15010Gel	10 PCs/Box
	X15010LGel	25 PCs/Box
XPAGE™ 12% 10Wells	X10012Gel	10 PCs/Box
	X10012LGel	25 PCs/Box
XPAGE™ 12% 12Wells	X12012Gel	10 PCs/Box
	X12012LGel	25 PCs/Box
XPAGE™ 12% 15Wells	X15012Gel	10 PCs/Box
	X15012LGel	25 PCs/Box
XPAGE™ 4-12% 10Wells	X10412Gel	10 PCs/Box
	X10412LGel	25 PCs/Box
XPAGE™ 4-12% 12Wells	X12412Gel	10 PCs/Box
	X12412LGel	25 PCs/Box
XPAGE™ 4-12% 15Wells	X15412Gel	10 PCs/Box
	X15412LGel	25 PCs/Box