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4-20% Tris PAGE Pre-cast Gel (15 wells)

Product Number: S080059

Shipping and Storage

Wet ice transportation; Stored at 2-8℃, with a shelf life of 12 months.

Component

Component	S080059
Tris SwePAGE pre made adhesive	10 pieces/box
Tris glycine SDS-PAGE high resolution rapid electrophoresis buffer	1L (powder) ×2

Description

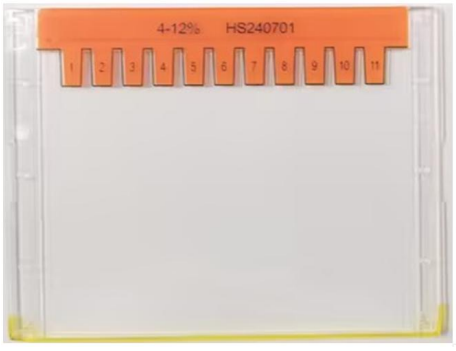
This product is a small polyacrylamide gel that is ready to use and easy to use. The SwePAGE prefabricated adhesive board has a unique design, and after special surface treatment, it can improve the resolution of protein bands and make the band distribution more uniform. The gel in this product is Tris system, which can be matched with Tris glycine SDS-PAGE high resolution rapid electrophoresis buffer and Tris glycine ordinary electrophoresis buffer.

Features

1. **Collocation Tris glycine SDS-PAGE high resolution rapid electrophoresis buffer:** Tris glycine SDS-PAGE high resolution rapid electrophoresis buffer With stronger buffering capacity and higher resolution, protein bands are sharper and clearer.
2. **Easy to use:** Ready to use, no need to mix glue, no need to come into contact with toxic reagents such as monomer acrylamide.
3. **High resolution:** The gel formula is optimized from the traditional Tris system, with higher resolution and sharper protein bands.
4. **Compatible with non denaturing protein electrophoresis:** This product does not contain SDS and can also be used for non denaturing protein electrophoresis using appropriate electrophoresis buffer and corresponding reagents.
5. **Good compatibility:** compatible with most small protein gel vertical electrophoresis tanks (such as Servicebio, Liuyi Bio-Rad、Tian Neng, etc
6. **The size of the SwePAGE preformed rubber plate:** 100mm wide, 82 mm high; the size of the gel: 85 mm wide, 60 mm high, and 1.0mm thick. It provides three concentrations of equivalent glue (8%, 10%, and 12%) and three concentrations of gradient glue (4-12%, 4-20%, and 8-16%) to meet the separation of molecular weight proteins in different regions.

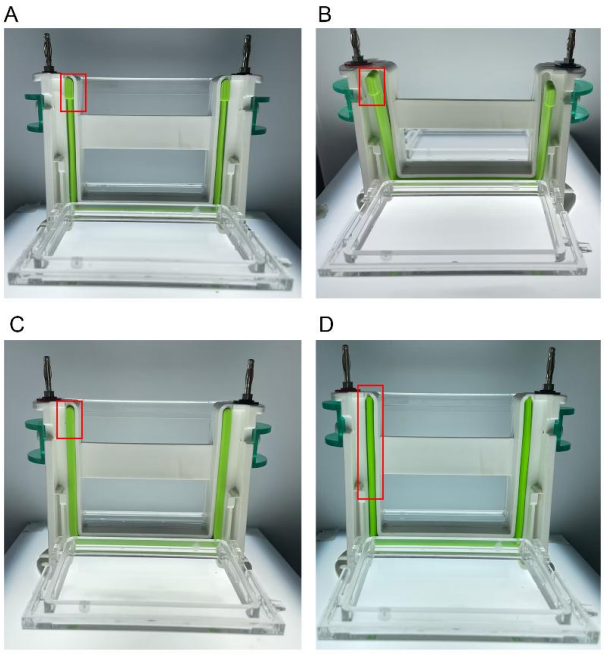
Protocol

1. Dissolve the Tris glycine SDS-PAGE high resolution rapid electrophoresis buffer provided in the reagent kit in pure water and dilute to 1L for later use. Remove SwePAGE pre made adhesive from the packaging bag and tear off the tape at the bottom of the adhesive sheet.



2. Slowly push the comb out of the rubber plate, pay attention to the consistent thrust on both sides, and put the rubber plate into the gel electrophoresis device:

3. Preparation for pre gel electrophoresis: Taking the vertical electrophoresis apparatus as an example, it comes with two types of sealed silicone strips, the raised one (Figure 3A) and the flat one (Figure 3D). The original packaging is usually raised, and the top of this type of sealing silicone strip has a raised structure. However, the SwePAGE pre made adhesive has a concave short plate and this part is flat. Before electrophoresis, the sealing silicone strip with a raised structure in the electrophoresis tank needs to be removed and reinstalled, with the flat surface facing outward or directly replaced with a flat straight version to prevent electrophoresis leakage. The specific operation is as follows: remove the U-shaped sealing strip from the electrophoresis tank (Figure 3A, B), reverse the installation of the adhesive strip, with the flat surface facing outward (Figure 3C) or replace it with a straight one (Figure 3D) and re insert it into the groove inside the frame, as shown in Figure 3. The above steps can be ignored if using a 61 brand electrophoresis tank; After completing the above steps, put the prefabricated rubber plate into the gel electrophoresis device.



Note: When loading plastic boards, the low edge should face inward. If only single prefabricated gel electrophoresis is performed, please insert a baffle on the other side to prevent leakage of electrophoresis solution; Taking the raised sealing strip of the electrophoresis instrument as an example, if there is no raised surface, ignore this step.

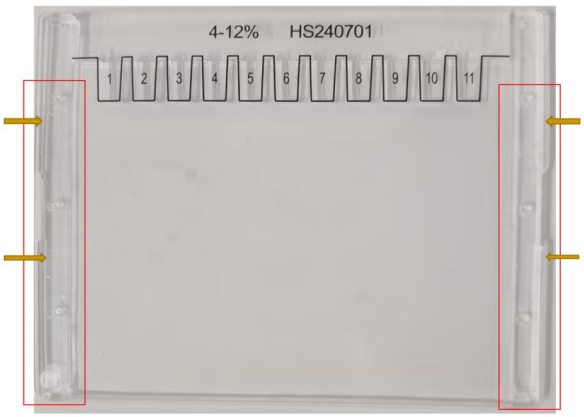
4. Pour a sufficient amount of SWE high-resolution rapid electrophoresis buffer or Tris Glicine ordinary electrophoresis buffer into the inner tank of the electrophoresis tank to fill it, and add the same electrophoresis buffer to the outer tank. It is recommended that the liquid level reach the middle of the outer tank. It should be noted that in order to obtain the best effect, the buffer solution of the outer tank should be added to a position lower than the liquid level of the inner tank, and should not overflow the rubber plate (Note: MOPS and MES electrophoresis buffer solutions are incompatible with the Tris gel system of

SwePAGE preformed glue, please use the Tris Glycine system electrophoresis buffer solution).

5. Use a syringe or pipette to aspirate an appropriate amount of electrophoresis buffer, gently rinse the sample well to remove bubbles and residual liquid inside the well.
6. Sample preparation
   6.1. SDS-PAGE gel electrophoresis: protein samples and 5×SDS-PAGE protein loading buffer solutions are mixed evenly in a 4:1 volume ratio, and then kept at 100℃ for 3-5 min through a metal bath or boiling water bath, which can be used for electrophoresis point samples. The total amount of protein sample that can be applied is 1-100μg.
   6.2. Non denaturing PAGE electrophoresis: Protein samples are mixed with 5×protein loading buffer without SDS in a 4:1 volume ratio, without heating, and can be used for electrophoresis spot after mixing. Note: The electrophoresis buffer provided in the prefabricated gel box contains SDS and is not suitable for non denaturing electrophoresis.
7. Sampling and electrophoresis: During sampling, the tip of the suction head should be inserted vertically into the sample well. The suction head should not puncture the gel or deform the gel plate, otherwise it may cause sample leakage. After sampling, cover the electrophoresis tank, insert the power cord plug into the power socket of the electrophoresis instrument (red to red, black to black), and conduct electrophoresis at 150V for 30-60 min until the bromophenol blue band moves to the bottom of the gel. Note: The electrophoresis voltage of gel should be adjusted according to the actual situation. Some electrophoresis devices have poor heat dissipation at the bottom, and the high voltage will lead to high local temperature, affecting the electrophoresis effect. In this case, the voltage should be properly reduced and ice bath should be taken.

Electrophoresis buffer	Voltage(V)	Initial current	Complete current	Electrophoresis time
Tris-Glycine SWE	150V	50-60mA	45-55mA	30-50min
Tris-Glicine Regular	150V	45-55mA	40-50mA	35-60min

8. After electrophoresis is completed, remove the pre made gel from the electrophoresis tank and carefully insert it into the gap between the gel plates using a pry tool (as shown in the red box in the figure). Gently pry open the plastic plates from top to bottom until they are completely pried open. The gel may stick to either side of the rubber plate. Remove the rubber plate without gel. Immerse the rubber side of the rubber plate with gel into the water. Tilt and gently lift the rubber plate. After the gel falls into the water, take the gel out of the water for dyeing, film rotation and other operations. Note: Used rubber plates and combs should be disposed of as medical waste or experimental waste and should not be thrown into household garbage bins.



Note

1. The product is paired with Tris glycine SDS-PAGE high resolution rapid electrophoresis buffer. To ensure optimal application results, it is recommended to use this buffer for protein electrophoresis.
2. Before protein electrophoresis, it is necessary to remove the bottom tape, otherwise normal electrophoresis cannot be performed.
3. If the temperature is too high during electrophoresis, choose ice bath conditions for electrophoresis as appropriate.
4. For your safety and health, please wear lab coats and disposable gloves when operating.