

Nova SDS-PAGE gel solution kit

Kit contains:

Cat. No : ALL0000-0250 **10%** resolving gel solution (250ML)

Cat. No : ALL0000-0060 **4%** stacking gel solution (60 ML)

Store: 4 °C

Introduction

Many kinds of SDS-PAGE electrophoresis system are widely used in proteomic studies. Among them, the Tris-glycine buffer system is most popular used for researcher because of its higher resolution and convenience to prepare. However, the traditional gradient SDS-PAGE is hard to prepared and consistence between lots is also barely to maintain. Nova gel solution is a creative **ALL IN ONE** pre-mixed gel solution. Solutions save time and improve reproducibility. **(acrylamide, tris, SDS, H₂O, and TEMED are included in pre-mixed solution) specially designed for easy prepare** SDS-PAGE gel.

For general Western protocol

Provided by user: APS

A. Prepare resolving gel solution

1. According to the following information to prepare the lower resolving gel by gently mix gel buffer with APS.

| | |
|-----------------------------|------|
| resolving gel solution (mL) | 10 |
| 10% APS (μL) | 100 |
| final volume (ml) | 10.1 |

2. Immediately overlay the resolving gel layer with ethanol, butanol, or H₂O to remove bubbles.
3. Wait 40 minutes to complete polymerize the resolving gel layer.
4. Pour off the overlay solution and completely remove it by absorption with filter paper.

B. Prepare stacking gel solution

1. According to the following information to prepare the lower stacking gel by gently mix **gel buffer** with APS.

| | |
|-----------------------------------|------|
| stacking gel solution (ml) | 2 |
| 10% APS (ul) | 20 |
| final volume (ml) | 2.02 |

2. Directly insert clean comb, avoid trapping air bubbles and gel solution leakage. The gel should be polymerized after 40 minutes at room temperature.
3. Carefully remove the comb; gently rinse the lane space by distilled water.

C. prepare sample

1. Add appropriate reducing agent (0.7M -ME, 0.3M DTT, or 0.3M DTE) to **5X sample buffer** before use.
2. Dilute 1 part of **5X sample buffer** with 3~5 part of quantified protein sample. According to protein marker ladder, each volume of sample buffer mix should be the same by adding lysis buffer you used.
3. Heating at $\sim 90^{\circ}\text{C}$ for 5 minutes.
4. Directly load into the well

Electrophoresis

| | Stacking | Resolving |
|-----------------|-------------------------|------------------------------|
| Run time | 90~130V for 5min | 150-170V for 30~50min |

1. Continue performing electrophoresis until tracking dye is reached to the bottom of the gel
2. During electrophoresis, remember that 5X sample buffer's tracking dye will form to a small gradient region, but not staining to a sharp band such as traditional bromophenol blue based tracking dye.



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