High Sieving Agarose (PCR Grade)

Product description

Agarose is a gel reagent commonly used for nucleic acid gel electrophoresis or blotting analyses (e.g., Northern or Southern blotting), and is also suitable for protein applications such as radial immunodiffusion (RID) experiments. This product is PCR-grade high-resolution agarose, free from DNase, RNase, Protease, and Endonuclease, with a gel strength ⩾750 g/cm^2. It provides high resolution for PCR products and small DNA fragments, achieving separation performance comparable to polyacrylamide gels.

Agarose Concentration vs. DNA Separation Range:

Linear DNA Fragment Size (bp)	20-250 bp	50-500 bp	100-1200 bp	500-2000 bp
Agarose Concentration (%)	5.0	4.0	3.0	2.0

Components

Components No.	N132102S	N132102M
Size	25 g	100 g

Specifications

CAS NO.	39346-81-1
Appearance	White to off-white powder
Gel Strength, 1.0%	⩾750 g/cm^2
Gel point, 1.0%	⩽33°C
Melting Point, 1.5%	⩽70°C
EEO	⩽0.10
Sulfate, %	⩽0.10%
Moisture	⩽10%
DNase	None Detected
RNase	None Detected
Protease	None Detected
Endonuclease	None Detected

Shipping and Storage

Store at room temperature, valid for five years.

Notes

1. Sudden boiling of melted gel may occur. Handle with caution to prevent burns. Avoid prolonged

heating in the microwave.

2. The buffer used for electrophoresis must be identical to the buffer used for gel preparation.

3. For your safety and health, please wear a lab coat and disposable gloves.

4. For research use only!

Instructions

1. Prepare an appropriate amount of electrophoresis and gel preparation buffer, and pour it into an Erlenmeyer flask.

【Note】Prepare buffer at the required concentration based on electrophoresis needs. The buffer used for electrophoresis must be identical to that used for gel preparation.

2. Accurately weigh the agarose according to the desired gel volume and concentration, and add it to the flask (total liquid volume should not exceed 50% of the flask’ s capacity).

3. Dissolve the agarose by heating in a microwave. Set to medium heat until boiling, maintain boiling for 30 seconds. Wearing heat-resistant gloves, remove the flask, gently swirl to resuspend undissolved particles, then reheat on high heat for 1 minute (or until agarose is fully dissolved). Wear heat-resistant gloves and swirl the flask to ensure uniform mixing.

【 Note 】 Ensure complete dissolution of agarose to achieve a clear solution, as incomplete dissolution may result in blurred electrophoresis bands. If excessive foaming occurs during heating, stop immediately. Avoid prolonged microwave heating.

4. Cool the solution to about 60°C, then add Arcegen Nucleic Acid Stain (N132109, compatible with UV). Mix gently.

【Note】The final working concentration of the stain is 1×. Add 5 μL of 10,000×aqueous nucleic acid stain per 50 mL of agarose solution.

5. Pour the agarose solution into a gel-casting tray and insert a comb at the desired position. Gel thickness is typically 3-5 mm.

6. Allow the gel to solidify at room temperature (about 30 min to 1 h), then place it in the electrophoresis tank.

【Note】If not used immediately, wrap the gel in plastic wrap and store at 4°C for up to 2-5 days.

7. Load samples and perform electrophoresis using standard protocols.

8. Visualize results under UV light.