Agarose

Catalog No.: 2400-100 Size: 100 g
Catalog No.: 2400-500 Size: 500 g

Storage Condition

Store at room temperature.

Description

This agarose powder is purified and intended for nucleic acid gel electrophoresis. Its specifications are as follows:

Analytical Specifications

Gel strength (1% gel): > 1200 g/cm^2;
Electroendosmosis (EEO): < 0.15;
Sulfate content: ≤ 0.15%;
Gel Temperature (1.5% gel): 35~37℃ ;
Melting Temperature (1.5% gel): 87~89℃ ;
Moisture: ≤ 10%;
No detectable nucleases.

Protocol

1. Recommended agarose gel concentrations for linear DNA fragments of different sizes in various electrophoresis buffers.:

Agarose concentration	The ideal linear DNA resolution range (bp)	
	1× TAE	1× TBE
0.6%	1200~15000	1200~12000
0.8%	1000~10000	1000~12000
1.0%	200~10000	100~10000
1.2%	100~8000	100~5000
1.5%	100~5000	50~3000
2.0%	50~3000	50~3000
2.5%	50~3000	50~2000

2. Method of preparing agarose gel:

① Measure the required volume of electrophoresis buffer (TAE or TB) based on the desired gel size and number of gels, and pour it into a conical flask.
Note: The buffer used for gel preparation and electrophoresis should be the same.

② Accurately weigh the required amount of agarose powder according to the desired gel concentration, and add it into the buffer in the conical flask. Cover the flask with a paper towel.

③ Heat the flask in a microwave oven in short intervals until the agarose is completely dissolved. Gently swirl the flask between intervals.
Caution: Microwave heating can cause overheating and sudden superheating (bumping). Loosely cover the flask (do not seal), do not use aluminum foil in a microwave, and wear heatproof gloves to avoid burns.

④ (Optional) A nucleic acid staining dye can be added to the completely melted agarose solution.
Caution (if using ethidium bromide or other hazardous dyes): Wear appropriate PPE (lab coat, gloves, eye protection), work in a designated area, and collect waste (gels, tips, paper) for proper disposal according to your lab's policy.

⑤ Pour the agarose solution into the gel casting tray, insert the comb at the appropriate position, and remove any bubbles. The gel thickness is typically 3–5 mm. Allow the gel to solidify completely at room temperature for about 30–60 minutes, then place it in the electrophoresis tank for use.
Note (storage): Short-term storage in electrophoresis buffer (TAE/TBE) is possible, but long-term storage is not recommended as it may reduce resolution.

All products are for research only
BioCluster Biotech Ltd. All right reserved.