Agarose LE (Standard Agarose)

deltalab GROUP Cat. Nº: DG0008

Introduction

Agarose is a neutral polysaccharide which is obtained in many purification steps from the cell wall of certain algae and red algae. Standard Agarose forms very clear gels with all standard running buffers and will result in a sharp and clear separation of your bio molecules. Extremely pure agarose with very low interference binding to staining reagents which produces a low background and high contrast appearance after staining.

Specifications

- ✓ Appearance: White, fine, homogeneous, free flowing.
- ✓ Electrophoresis grade
- ✓ Moisture: ≤ 10%
- ✓ Melting Point (1.5%): ≥ 90 °C
- ✓ Gel strength (1%): ≥1,200 g/cm²
- ✓ Gelling temperature (1.5%): 36°C ±1.5°C
- ✓ Sulphate: ≤ 0.15%
- ✓ EEO(-mr): 0.09-0.13
- ✓ Guaranteed to be free of DNA binders, inhibitors, DNases, and RNases.

Storage and Stability

Store the agarose at room temperature (20 – 24 °C). Long-term storage may also be done at 4 – 8 °C.

Protect from moisture. Light Sensitive

Applications:

- ✓ DNA/RNA separation ≥ 1Kb
- ✓ Analytical and preparative electrophoresis
- ✓ Excellent for all blotting applications
- ✓ Excellent for DNA typing
- ✓ Exceptionally low background of staining agents
- ✓ Protein electrophoresis such as radial immunodiffusion

Recommended Usage (TAE):

Concentration	Molecular Weight
1.0%	400bp-8kb
1.2%	300bp-7kb
1.5%	200bp-4kb
2.0%	100bp-3kb

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PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development and is not suitable for administration to humans or animals.

Nirco, S.L
C/Puerto de Navafría, 12.
28935 Móstoles (Madrid). Spain
☎ +34 91 616 42 68
🖷 +34 91 616 59 46
✉ nirco@nirco.com

Preparation of the Gel

1. Weigh out the appropriate mass of agarose into an Erlenmeyer flask.

   Agarose gels are prepared using a w/v percentage solution. The concentration of agarose in a gel will depend on the sizes of the DNA fragments to be separated, with most gels ranging between 0.5%-2%. The volume of the buffer should not be greater than 1/3 of the capacity of the flask.

2. Add running buffer to the agarose-containing flask. Swirl to mix.

   The most common gel running buffers are TAE and TBE.

3. Melt the agarose/buffer mixture until the agarose has completely dissolved.

   This is most commonly done by heating in a microwave but can also be done over Bunsen flame. At 30 s intervals, remove the flask and swirl the contents to mix well.

4. Add ethidium bromide (EtBr) to a concentration of 0.5 **µg**/ml.

   EtBr is a potential carcinogen and should be handled appropriately. Alternative dyes for the staining of DNA are available; however, EtBr remains the most popular one due to its sensitivity and cost.

5. Cool the solution to 55-60°C.

6. Cast the gel following the instructions provided for your casting apparatus.