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SeaPlaque® Agarose

The original low melting temperature agarose.

Introduction

SeaPlaque® Agarose is the original low melting temperature agarose, producing gels with great sieving properties and higher clarity than standard melting temperature agarose. The low melting temperature of SeaPlaque® Agarose makes it ideal for the recovery of DNA and RNA.

Analytical Specifications

Gelling temperature (1.5%)	26°C-30°C
Melting temperature (1.5%)	≤65°C
Gel strength (1%)	≥200 g/cm²

Applications

- Recovery of DNA and RNA
- Electrophoresis of DNA and RNA

Suggested Agarose Concentrations

Size Range (Base Pairs)	Final Agarose Concentration % 1X TAE Buffer	1X TBE Buffer
500-25,000	0.75	0.70
300-20,000	1.00	0.85
200-12,000	1.25	1.00
150-6,000	1.50	1.25
100-3,000	1.75	1.50
50-2,000	2.00	1.75

Dye Mobility Table

Migration of double-stranded DNA in relation to Bromophenol Blue (BPB) and Xylene Cyanol (XC) in SeaPlaque® Agarose gels.

1X TAE Buffer		%	1X TBE Buffer	
XC	BPB	Agarose	XC	BPB
11,700	1,020	0.50	6,100	400
4,000	500	0.75	2,850	280
2,300	350	1.00	1,700	180
1,500	200	1.25	1,000	100
1,000	150	1.50	700	70
700	100	1.75	500	50
550	60	2.00	400	30
320	30	2.50	250	10

Precautions

Always wear eye protection when dissolving agarose and guard yourself and others against scalding solutions. Refer to Material Safety Data Sheet for additional safety and handling information.

Microwave Instructions for Agarose Preparation

1. Choose a beaker that is 2-4 times the volume of the solution.
2. Add room temperature 1X or 0.5X electrophoresis buffer and a stir bar to the beaker.
3. Slowly sprinkle in the agarose powder while the solution is rapidly stirred.
4. **Remove the stir bar if not Teflon® coated.**
5. Weigh the beaker and solution before heating.
6. Cover the beaker with plastic wrap.
7. Pierce a small hole in the plastic wrap for ventilation.
8. Heat the beaker in the microwave oven on High power until bubbles appear.
9. Remove the beaker from the microwave oven. **Caution: Any microwaved solution may become superheated and foam over when agitated.**
10. **GENTLY** swirl the beaker to resuspend any settled powder and gel pieces.
11. Reheat the beaker on HIGH power until the solution comes to a boil.
12. **Hold at boiling point for 1 minute** or until all of the particles are dissolved.
13. Remove the beaker from the microwave oven.
14. **GENTLY** swirl the beaker to thoroughly mix the agarose solution.
15. After dissolution, add sufficient hot distilled water to obtain the initial weight.
16. Mix thoroughly.
17. Cool the solution to 50°C-60°C prior to casting.

Hot Plate Instructions for Agarose Preparation

1. Choose a beaker that is 2-4 times the volume of the solution.
2. Add room-temperature electrophoresis buffer and a stir bar to the beaker.
3. Slowly sprinkle the agarose powder while the solution is rapidly stirred.
4. Weigh the beaker and solution before heating.
5. Cover the beaker with plastic wrap.
6. Pierce a small hole in the plastic wrap for ventilation.
7. Bring the solution to a boil while stirring.
8. Maintain gentle boiling until all the agarose is dissolved (approximately 10 minutes).
9. Add sufficient hot distilled water to obtain the initial weight.
10. Mix thoroughly.
11. Cool the solution to 50°C-60°C prior to casting.

Ordering Information:

Catalog No.	**Size**
50101	25g
50100	125g

For Laboratory Use.

For more information contact Technical Service at (800) 521-0390 or visit our website at **www.Lonza.com**

Related Products:
ß-Agarase
DNA Ladders
DNA Markers
SeaPlaque® GTG® Agarose
AccuGENE® TBE and TAE Buffers