

CleverGEL Agarose Low EEO

CSL-AG5 CSL-AG100 CSL-AG500 CSL-AG1000

Introduction

CleverGEL is a new environmentally friendly agarose suitable for routine analysis of nucleic acids using standard electrophoretic procedures. CleverGEL is manufactured by a process which excludes organic solvents harmful to marine life, making it far kinder to the environment than conventional agarose. A low EEO (electroendosmotic) flow minimises diffusion so that even the smallest of nucleic acid fragments remains sharp and tightly resolved, while a high gel strength aids handling and maintains compatibility with blotting techniques.

Analytical Specifications

Gelling temperature (1.5%) 36°C ±1.5°C

Melting temperature (1.5%) 88°C±1.5°C

Gel strength (1%) >1,200 g/cm²

EEO ≤ 0.1%

Nuclease & Protease Free

Shelf-Life 5 years

Application

- Analytical electrophoresis of DNA and RNA 0.1-10Kb in size.
- Blotting DNA and RNA

Suggested Agarose concentration

Range (Base Pairs)	Final Agarose Concentration (%)	
	1X TAE Buffer	1X TBE Buffer
1,000-23,000	0.60	0.50
800-10,000	0.80	0.70
400-8,000	1.00	0.85
300-7,000	1.20	1.00
200-4,000	1.50	1.25
100-3,000	2.00	1.75

Warning

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

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.**

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.

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 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

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	
CSL-AG5	Agarose 5g, Low EEO
CSL-AG100	Agarose 100g, Low EEO
CSL-AG500	Agarose 500g, Low EEO
CSL-AG1000	Agarose 1000g, Low EEO (2x500g bottles)
CSL-AG2000	Agarose 2000g, Low EEO (4x500g bottles)
CSL-AG5000	Agarose 5000g, Low EEO (10x500g bottles)
CSL-AG10KG	Agarose 10kg, Low EEO (20x500g bottles)
CSL-AG20KG	Agarose 20KG, Low EEO (40x500g bottles)

Related products

Agarose: High resolution PCR grade: CSL-HRA5; CSL-HRA100; CSL-HRA500

Low Melting point: CSL-LMA5; CSL-LMA50; CSL-LMA100; CSL-LMA500

DNA markers: CSL-MDNA-100BPH; CSL-MDNA-100BP; CSL-MDNA-1KB; CSL-MDNA-50BP; CSL-MDNA-BR; CSL-MDNA-HR

DNA stain: CSL-RUNSAFE; CSL-RUNSAFEPLUS500; CSL-RUNSAFE-2000; CSL-RUNSAFE-500

Buffers: TBE10X1L; TBE10X5L; TAE50X1L; TAE50X5L; CSL-TBEP

Real-time electrophoresis chambers: CSL-RVMSCHOICE; CSL-RVMSCHOICE10; CSL-RVMSCHOICE15; CSL-RVMSCHOICETRIO

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