AGAROSE LE

High Performance, General Purpose Agarose

- *Multi-purpose, high purity*
- *Enhanced resolution and clarity*
- *Reduced background*
- *Low EEO/increased electrophoretic mobility*
- *RNase, DNase, Protease-free*
- *High hysteresis, improved thermal stability*

Green Choice
Organic Solvent Free

Benchmark Agarose LE is a highly purified agarose, suitable for a variety of molecular biology applications. It is refined using an advanced process that ***excludes the use of organic solvents***, yielding a cleaner end-product with a significantly reduced environmental impact. Agarose LE can be used for analyses of proteins and nucleic acids of various sizes (150 bp to 25 kbp).

It's low EEO (≤ 0.13-m_r) promotes increased electrophoretic mobility, yielding improved resolution and shorter run times. This also allows macromolecules and larger particles (subcellular fragments, viruses, etc.) to migrate more freely through the gel matrix. The consistently low EEO also provides a reduction in band distortion (caused by counterflow) that can result from the presence of excessive sulfate-rich negative ions.

Agarose LE is widely used for nucleic acid electrophoresis (analytical and preparative), protein electrophoresis (including radial immunodiffusion) and various blotting protocols. It is easily soluble, free of nucleases, and easy to use. It is highly transparent (forms a clear, colorless solution at 1g:100ml H_2O), and exhibits exceptionally low absorption of chemical staining agents. Pore size can be adjusted by simple modifications to the concentration ratio.

Formulated for high gel strength and integrity, Agarose LE exhibits exceptional thermal stability and mechanical resistance, ensuring safe, easy handling, regardless of whether a denaturing agent has been added.

Technical Data

Moisture:	≤ 7%
EEO (electroendosmosis):	≤ 0.13 -m_r
Sulfate:	≤ 0.20%
Gelling Temp. (at 1.5%):	36° ± 1.5° C
Melting Temp. (at 1.5%):	88° ± 1.5° C
Gel Strength (at 1.0%):	1200g/cm²
Gel Strength (at 1.5%):	2500g/cm²
DNase, RNase:	None detected
Endonuclease:	None detected
Protease:	None detected

Ordering Information

A1700	Agarose LE, organic solvent free, 25g
A1701	Agarose LE, organic solvent free, 100g
A1705	Agarose LE, organic solvent free, 500g

Benchmark Scientific

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Specialty Agarose

Low Melt, Hi-Res and 3:1 Grades

Green Choice
Organic Solvent Free

- ***Three "specialty" grades available***
  - ***-Agarose LM:** Low melt agarose*
  - ***-Agarose HR:** Ultra-high resolution agarose*
  - ***-Agarose 3:1:** Blended agarose for small fragments*
- ***Environmentally Friendly, no organic solvents used in processing***
- ***Enhanced resolution with low background***

Benchmark's specialty agarose is the perfect choice when resolving small DNA/RNA fragments, isolating nucleic acids from gels or performing in-gel manipulations. Available in three grades, LM, HR and 3:1, it will meet all your electrophoretic needs.

Agarose LM - this low melt agarose can be used to resolve samples from 200bp to 25kb. It is perfect for prep gels as it has a melting point well below denaturation temperatures (65°C). The agarose remains liquid at 37°C, allowing for procedures such as restriction digests and labeling to be carried out in the gel.

Agarose HR - for applications such as analysis of STR's, AFLP's, and PCR products where separation of small fragments is required, Benchmark's Agarose HR is ideal. Clear resolution of 20bp to 800bp fragments can be carried out in this intermediate melting agarose.

Agarose 3:1 - this blended high resolution agarose is designed for separation of fragments less than 1,000bp. Gels made with Agarose 3:1 are suitable for analytical and blotting applications.

All Benchmark agarose is manufactured under a "green" process that eliminates the use of organic solvents. They provide gels with enhanced resolution and clarity, low EEO and low backgrounds. All the agarose is tested to be RNase, DNase, Protease and Endonuclease free.

Technical Data

	Agarose LM (Item: A1801-LM)	Agarose HR (Item: A1801-HR)	Agarose 3:1 (Item: A1801-31)
Moisture:	≤ 10%	≤ 10%	≤ 10%
EEO (electroendosmosis):	≤ 0.1%	≤ 0.1%	≤ 0.1%
Sulfate:	≤ 0.1%	≤ 0.1%	≤ 0.1%
Gelling Temp. (at 1.5%):	26° to 30° C	≤ 33° C	≤ 36° C
Melting Temp. (at 1.5%):	≤ 65° C	≤ 70° C	≤ 80° C
Gel Strength:	>200 g/cm² (1%)	>750 g/cm² (1.5%)	>650 g/cm² (1.5%)
DNase, RNase:	None detected	None detected	None detected
Endonuclease:	None detected	None detected	None detected
Protease:	None detected	None detected	None detected
Resolution:	200bp to 25kbp	20bp to 800bp	50bp to 1kbp
Applications:	Prep gels In gel processing	AFLP's STR's PCR/Small fragments	PCR Blotting

Ordering Information

A1801-LM	Agarose LM, Low melting agarose, 100g
A1801-HR	Agarose HR, Hi Resolution agarose, 100g
A1801-31	Agarose 3:1, 3:1 Blended agarose, 100g

Also Available, Standard Molecular Biology Grade Agarose:

A1705	Agarose LE, Standard grade, 500g
A2505	Agarose LE, 0.5g tablets, 1000 tablets (500g)

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EZ Pack™ Agarose

0.5g Agarose Tablets (Standard LE Grade)

NEW EZ Pack Tablets Eliminate Weighing

- Fool-proof, no weighing
- Fast dissolving, just two minutes
- Environmentally friendly, free of organic solvents
- Consistent, reproducible gels
- Enhanced resolution and clarity

Researchers trust Benchmark's Agarose LE to meet their electrophoretic needs for a variety of applications. Now the same agarose is available in a convenient, no mess tablet.

Agarose LE is refined in an advanced process that excludes the use of organic solvents. The result is a cleaner end product with significantly reduced environmental impact. The agarose can be used for analyses of nucleic acids from 150bp to 6kbp, protein electrophoresis and various blotting protocols.

The low EEO of the agarose promotes increased electrophoretic mobility, yielding improved resolution and shorter run times. This also allows macromolecules and larger particles (subcellular fragments, viruses, etc.) to migrate more freely through the gel matrix. The consistently low EEO reduces band distortion (caused by counterflow) that can result from the presence of excessive sulfate-rich negative ions.

The quick dissolving EZ Pack tablet contains 0.5g (500mg) of Agarose LE, eliminating the hands-on time and inaccuracies normally associated with weighing. Use of the tablet is not only convenient and cleaner, it also provides better consistency and reproducbilty gel to gel. Gel preparation is simple - add the desired number of tablets to electrophoresis buffer, alow to sit for two minutes and then heat and pour as usual. The resulting gels are highly transparent, have exceptional thermal stability (ensuring safe and easy handling) and exhibit exceptionally low absorption of chemical staining agents.

EZ Pack Agarose Tablets are supplied in convenient blister packs for safe, clean dispensing.

Technical Data

Gel Strength:	≥ 1200g/cm² (1%) ≥ 2500g/cm² (1.5%)
Gel Temperature:	36°C +/- 1.5°C (1.5%)
Melt Temperature:	88°C +/- 1.5°C (1.5%)
EEO ($-m_r$)	≤ 0.13
Moisture Content:	≤ 10%
Sulfate:	≤ 0.20%
RNase/DNase	None Detected
Protease/Endonuclease:	None Detected
Store at:	Room Temperature

EZ Chart:

Buffer volume required to achieve desired gel strength:

GEL %	1 Tab	2 Tabs	3 Tabs
0.8%	63ml	125ml	188ml
1%	50ml	100ml	150ml
1.2%	42ml	83ml	125ml
1.3%	38ml	77ml	115ml
1.5%	33ml	67ml	100ml
1.8%	28ml	56ml	83ml
2.0%	25ml	50ml	75ml

Ordering Information

A2501	EZ Pack Agarose Tablets, 100g (200 tabs)
A2505	EZ Pack Agarose Tablets, 500g (1000 tabs)

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