

# Axygen Agarose LE

(LOW ELECTROENDOSMOSIS)

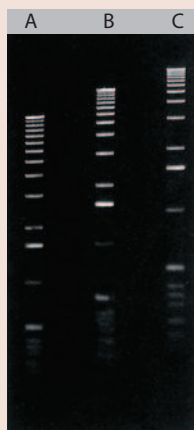
Agarose LE is a **HIGH QUALITY MOLECULAR BIOLOGY GRADE AGAROSE SUITABLE FOR ANALYTICAL AND PREPARATIVE ELECTROPHORESIS OF NUCLEIC ACIDS**. Nucleic acid separation with Agarose LE is between 0.2–15 kbp depending on the concentration of Agarose LE. Nucleic acid fragments separated with Agarose LE can be blotted to nylon or nitro-cellulose membranes by all standard blotting techniques. Detection with non-radioactive probes, e.g. digoxigenin (DIG) - labeled nucleic acids, does not interfere with the use of Agarose LE. LE is tested for preparative electrophoresis and isolation of DNA fragments. However, we recommend also our low melting point Agarose LM that is optimized for these applications.

## PROTOCOL: ELECTROPHORESIS of DNA and RNA

The most commonly used technique for DNA separation is electrophoresis in horizontal agarose gels submerged in either tris-acetate or tris-borate buffer. RNA molecules are separated in denaturing agarose gels containing formaldehyde. RNA gels are submerged in MOPS buffer.

- step 1: Add Agarose LE to a measured volume of buffer in a beaker or flask that is 3 times the volume of solution prepared. The amount of Agarose LE added depends on the desired concentration.
- step 2: Dissolve the agarose by melting, simply by heating the slurry in a boiling water bath. If you are using a microwave oven, heat on high power and mix gently.
- step 3: Cool the solution to approx. 50°C before pouring. efficient separation of DNA fragments of a wide size range can be achieved by adjusting Agarose LE concentration (see table).

Concentration of Agarose LE %	DNA separation range (kbp)	Size of linear DNA fragment (bp)
0.8	1 to 15	950
1	5 to 10	525
1.25	0.3 to 5	450
1.5	0.2 to 4	400
1.75	0.2 to 2.5	300



Agarose LE gels in 1X TAE buffer  
A-0.75%, B-1%, and C-1.25%

Marker: 1kb ladder.

Electrophoresis conditions:  
submarine gel, 2 hours 30 min,  
4.5 V/cm in 1X TAE

## APPLICATIONS :

- DNA electrophoresis
- Analysis of PCR products
- Separation of restriction endonuclease digests of DNA
- Electrophoresis of RNA
- Protein Electrophoresis such as radial diffusion

## SPECIFICATIONS :

Clarity 1.5% (Ntu)	≤ 3%
Electroendosmosis (Eeo)	0.05 - 0.13
Sulphur as SO <sub>4</sub>	0.14%
Gelling Temperature (1.5%)	36°C (±1.5°C)
Melting Temperature (1.5%)	88°C (±1.5°C)
Gel Strength (1%)	1200 G/cm <sup>2</sup>
Gel Strength (1.5%)	2500 G/cm <sup>2</sup>
DNase	None Detected
RNase	None Detected



### DESCRIPTION

Agarose LE  
Agarose LE  
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### QTY

100 gm  
500 gm  
5 kg

### CATALOG NO.

AGR-LE-100  
AGR-LE-500  
AGR-LM-5000

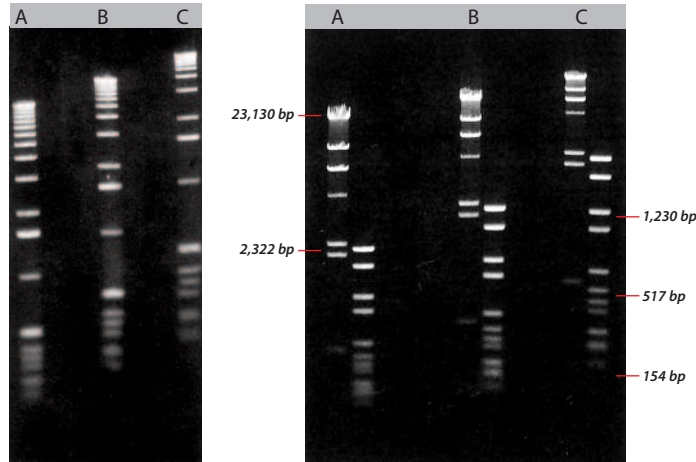
# Axygen Agarose LM and MS (LOW MELTING AND MOLECULAR SCREENING)



Agarose LM is a **LOW MELTING AGAROSE THAT ALLOWS FOR THE RECOVERY OF UNDAMAGED NUCLEIC ACIDS**

below their denaturation temperature. The low gelling temperature ensures that the agarose will be in a liquid state at a temperature range where In-Gel manipulations can be performed without prior extraction of the DNA from the gel slice.

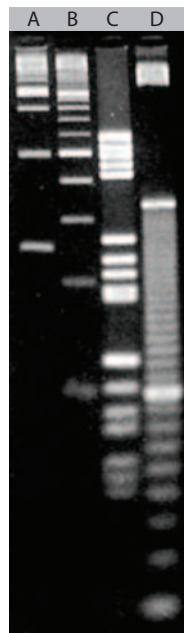
Agarose MS is a **MOLECULAR SCREENING AGAROSE FOR IMPROVED RESOLUTION OF DNA FRAGMENTS** with 500 bp or less, especially primer-sized fragments.



Agarose LM at different concentrations.

A-0.75%, B-1% and C-1.25%.

Marker: 1 kb ladder, 0.5 µg/lane.  
Running conditions: 1X TAE buffer, 4.5V/cm, 2 hours 30 min.



Agarose MS gel, 3% concentration in 1X TAE buffer.

Markers: lane 1- 250 bp ladder  
Lane 2 100 bp ladder  
Lane 3 Molecular weight marker V (Roche)  
Lane 4 10 bp ladder

Electrophoresis conditions:  
submarine gel, 2 hours,  
4.5 V/cm in 1X TAE buffer

## AGAROSE LM :

- Highest gelling/melting temperatures and gel strength
- Electrophoresis of DNA fragments  $\geq 1000$  bp
- Suitable for tissue and cell culture and viral plaque assays
- Ideal for Preparative electrophoresis

## AGAROSE MS:

- High resolution of short PCR products and DNA fragments for improved clarity of the gel, enhancing visibility
- Stronger gel structure and higher gel strength for better handling. The chances of gels breaking or cracking are greatly minimized, even at lower concentrations
- High gel strength allows use in blotting
- Low DNA binding for easy recovery

## SPECIFICATIONS :

	LM	MS
Clarity 1.5% (Ntu)	$\leq 7$	$\leq 4$
Electroendosmosis (Eeo)	$\leq 0.12$	$\leq 0.12$
Sulphur as SO <sub>4</sub>	0.11%	0.12%
Gelling Temperature (1.5 %)	$\geq 31^{\circ}\text{C}$	24-28 $^{\circ}\text{C}$
Melting Temperature (1.5 %)	$\geq 76^{\circ}\text{C}$	$\geq 65.5^{\circ}\text{C}$
Gel Strength (3%)	$\geq 500$ G/Cm <sup>2</sup>	$\geq 500$ G/Cm <sup>2</sup>
DNase	--- None Detected ---	--- None Detected ---
RNase	--- None Detected ---	--- None Detected ---
DNA Resolution $\geq 1000$ bp	Finely Resolved	Finely Resolved



DESCRIPTION	QTY	CATALOG NO.
Agarose LM	50 gm	AGR-LM-50
Agarose LM	100 gm	AGR-LM-100
Agarose MS	50 gm	AGR-MS-50
Agarose MS	100 gm	AGR-MS-100