

Agarose LM (Low Melting)

Agarose LM, low melting gels 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. Low Melting (LM) Agarose is derivatized by organic synthesis which generates methoxylate groups from the basic agarose structure.

Applications:

Agarose LM has the highest gelling/melting temperatures and gel strength.

- *Electrophoresis of DNA fragments ≥ 1000 bp.*

- *Tissue and cell culture.*

- *Viral plaque assays*

Agarose LM is also optimized for preparative electrophoresis and isolation of DNA fragments.

Specifications

CLARITY 1.5% (NTU)	≤ 4
ELECTROENDOSMOSIS (EEO)	≤ 0.12
SULFUR AS SO ₄	0.12%
GELLING TEMPERATURE (1.5 %)	24-28° C
MELTING TEMPERATURE (1.5 %)	$\geq 65.5^{\circ}$ C
GEL STRENGTH (1.5%)	≥ 500 G/CM ²
DNASE	NONE DETECTED
RNASE	NONE DETECTED
DNA RESOLUTION ≥ 1000 BP	FINELY RESOLVED

Storage and Stability

Store in a cool dry place at 15-25°Celsius.

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.

Step1: 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.

Step2: 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.

Step3: Cool the solution to approx. 50°C before pouring.

Results



Agarose LM at different concentrations.
A-0.75%, B-1% and C-1.25%.

Marker: 1kb ladder, 0.5 μ g/lane.

Running conditions: 1X TAE buffer, 4,5V/cm,
2hours 30 min.

Ordering Information

Part#	Product	Qty.
AGR-LM-50	Agarose LM	50gm
AGR-LM-100	Agarose LM	100gm