

AGAROSE MANUAL

LM SIEVE

LM SIEVE Agarose is a low melting temperature agarose with the highest resolving capacity for DNA fragments smaller than 1000 bp, especially PCR products ranging from 200 to 800 bp.

This agarose is GQT (Genetic Quality Tested) certified. This ensures that In-Gel applications can be performed in remelted agarose, avoiding difficult DNA extraction steps.

LM SIEVE Agarose is ideal for digestion by agarase enzymes, making it very easy to recover small DNA fragments suitable for cloning or enzymatic processing.

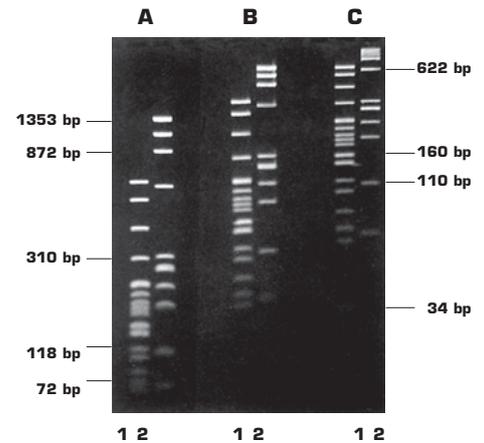
LM SIEVE Agarose can be used at high concentrations, forming gels with excellent clarity and a higher sieving capacity than standard melting agaroses. Due to their high gel strength, LM SIEVE Agarose gels are very easy to handle, even at concentrations as low as 2%.

Applications

- Electrophoresis of DNA fragments ≤ 1000 bp.
- In-Gel enzymatic processing (digestion, ligation, PCR).
- Preparative electrophoresis.
- Analysis and recovery of small DNA fragments for further applications.

Functional Tests

- DNA resolution: bands appear sharp and finely resolved.
- DNase/RNase activity: none detected.
- DNA binding: none detected.
- In-Gel enzymatic processing: passes test.
- Enzymatic degradation by agarase: passes test.
- Gel background: very low after Et.Br. staining.



LM SIEVE Agarose gels in 1XTBE buffer: A-2%, B-3%, C-4%.
Markers: lane 1 - pBR322DNA, MspI; lane 2 - ϕ X174DNA, HaeIII
Electrophoresis conditions: submarine gel, 2 hours 30 min., 4.5 V/cm in 1XTBE buffer.

Specifications

| | LM SIEVE |
|--------------------------------------|---------------|
| Moisture | $\leq 5\%$ |
| Ash | $\leq 0.3\%$ |
| EEO* | ≤ 0.10 |
| Sulfate | $\leq 0.12\%$ |
| Gel Strength 4% (g/cm ²) | ≥ 1000 |
| Gelling Temperature 4% (°C) | ≤ 35 |
| Melting Temperature 4% (°C) | ≤ 65 |

* EEO (electroendosmosis)

NOVAGEL GQT

NovaGel is a new low gelling/melting temperature Agarose GQT grade certified. This agarose, with high resolution capacity, finely resolves nucleic acid fragments from 50 bp to 1000 bp, especially PCR products.

Due to its low gelling/melting temperatures NovaGel GQT is compatible with In-gel applications (enzymatic processing of nucleic acids directly in remelted agarose) thus, it is not necessary to recover DNA from agarose gels.

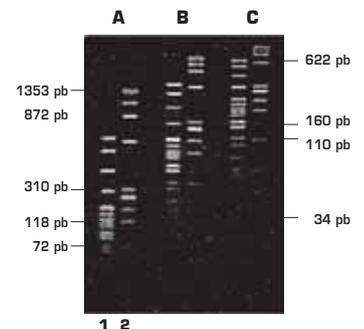
The low viscosity of NovaGel GQT agarose makes it possible for gels of high concentrations, even 6%, to be prepared easily. At lower concentration (< 2%) gels are fragile and difficult to handle, so special care must be taken when working. The best concentration range for easy handling is 3 - 6%.

Applications

- Analytical and preparative gel electrophoresis of small DNA fragments.
- In-Gel applications.
- Analysis and recovery of small DNA fragments for further applications.

Functional Tests

- Fine resolution: DNA fragments ≤ 1000 bp.
- DNase/RNase activity: none detected.
- DNA binding: none detected.
- In-Gel enzymatic processing: passes test.
- Enzymatic degradation by agarase: passes test.
- Gel background: very low after Et.Br. staining.



Novagel GQT Agarose gels in 1X TBE buffer: A-2%, B-3%, C-4%.
Markers: lane 1-pBR322 DNA, MspI, lane-2- ϕ X174 DNA, HaeIII.
Electrophoresis conditions: submarine gel, 2 hours, 4.5 V/cm.
in 1X TBE buffer.

Specifications

| | NOVAGEL GQT |
|--------------------------------------|---------------|
| Moisture | $\leq 7\%$ |
| Ash | $\leq 0.45\%$ |
| EEO* | ≤ 0.13 |
| Sulfate | $\leq 0.12\%$ |
| Clarity 4% (NTU) | ≤ 6 |
| Gel Strength 4% (g/cm ²) | ≥ 800 |
| Gelling Temperature 4% (°C) | ≤ 35 |
| Melting Temperature 4% (°C) | ≤ 65 |

* EEO (electroendosmosis)