

# AGAROSE MANUAL

## D-1 Agaroses and D-1 LE GQT

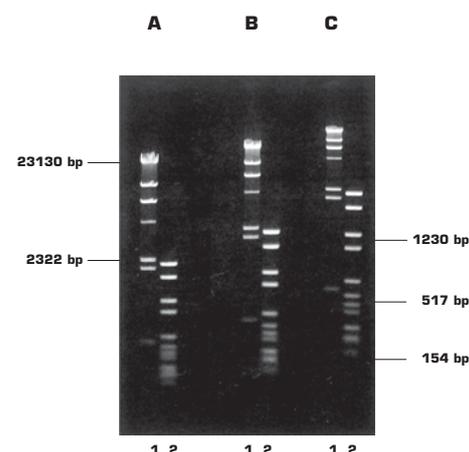
D-1 Agarose is available for different uses in 4 types: Low EEO\*, Medium EEO, High EEO, and D-1 LE GQT.

GQT Agarose is similar to D-1 LE, a standard gelling/melting temperature agarose with high gel strength.

This agarose is GQT (Genetic Quality Tested) certified which ensures that preparative electrophoresis can be performed and DNA recovered without damaging its properties and structure. D-1 LE GQT gels can be used in Molecular Biology techniques.

### Features

- Extraordinary mechanical resistance for more reliable and easier handling.
- Possibility of varying pore size in accordance with particle size by modifying the gel concentration.
- Easy preparation of the gel by simple dilution in aqueous buffers either by standard boiling or microwaving.
- Greater thermal stability due to high hysteresis (difference between gelling and melting temperatures).
- Excellent transparency of the gel & visibility.
- Exceptionally low absorption of staining agents.
- Absence of toxicity (the alternative is polyacrylamide which can be toxic).



D-1 LE Agarose gels in XTAE buffer A-0.75%, B-1%, C-1.25%  
Markers: lane 1 - Lambda DNA. HindIII;  
lane 2 - pBR328DNA. BglII+pBR328DNA. HinfI. Electrophoresis  
conditions: submarine gel, 2 hours, 4.5 V/cm in 1 XTAE buffer.

### Applications

**D-1 LE:** with low EEO. High electrophoresis mobility.

- Nucleic acid analytical and preparative electrophoresis.
- Blotting.
- Protein electrophoresis such as radial immunodiffusion.

**D-1 LE GQT:** with low EEO.

- Analytical and preparative gel electrophoresis for nucleic acids  $\geq 1000$  bp.
- Blotting assays.
- Recovery of DNA fragments for further applications (enzymatic processing or cloning).

**D-1 ME:** with intermediate EEO.

- Nucleic acids electrophoresis.
- Protein electrophoresis (serum protein and immunoelectrophoresis).

**D-1 HE:** with high EEO.

- Used in techniques such as serum protein, immunoelectrophoresis and counterimmunoelectrophoresis.

### Specifications and Functional Tests

	D-1 LE	D-1 LE GQT	D-1 ME	D-1 HE
Moisture	$\leq 7\%$	$\leq 7\%$	$\leq 7\%$	$\leq 7\%$
Ash	$\leq 0.4\%$	$\leq 0.4\%$	$\leq 0.5\%$	$\leq 1.0\%$
EEO*	0.05 - 0.13	0.05 - 0.13	0.16 - 0.19	0.23 - 0.26
Sulfate	$\leq 0.1\%$	$\leq 0.1\%$	$\leq 0.14\%$	$\leq 0.2\%$
Clarity 1.5 % (NTU)	$\leq 3$	$\leq 3$	$\leq 4$	$\leq 4$
Gel Strength 1% (g/cm <sup>2</sup> )	$\geq 1200$	$\geq 1200$	$\geq 1000$	$\geq 750$
Gel Strength 1.5 % (g/cm <sup>2</sup> )	$\geq 2500$	$\geq 2500$	$\geq 2200$	$\geq 1200$
Gelling Temperature 1.5 % (°C)	$36 \pm 1.5$	$36 \pm 1.5$	$36 \pm 1.5$	$36 \pm 1.5$
Melting Temperature 1.5 % (°C)	$88 \pm 1.5$	$88 \pm 1.5$	$88 \pm 1.5$	$88 \pm 1.5$
DNAse/ RNAse activity	None detected	None detected	None detected	None detected
DNA resolution $\geq 1000$ bp	Finely resolved	Finely resolved	Finely resolved	Finely resolved
Gel background	Very low	Very low	Very low	Very low

\*EEO (Electroendosmosis)