

# AGAROSE MANUAL

## MS-8

An agarose for molecular screening that improves resolution of small DNA fragments and PCR products. CONDA has produced MS-8 Agarose for applications that require efficient separation of small DNA fragments and PCR products.

### Features

- High resolution of short PCR and DNA fragments.
- Improved clarity of the gel, enhancing visibility.
- Better handling than competitive products because of a stronger gel structure and higher gel strength. The chances of gels breaking or cracking when handled are greatly minimized, even with lower concentrations of agarose.
- High gel strength allows use in blotting.

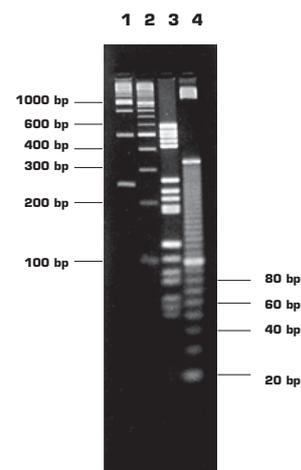
### Functional Tests

- DNA resolution: bands appear sharp and finely resolved.
- DNase/RNase activity: none detected.
- Gel background: very low after Et.Br. staining.
- DNA binding: very low.

### Specifications

	MS-8	1.5 %	3 %
Moisture	≤ 7%		
Ash	≤ 0.35%		
EEO*	≤ 0.12		
Sulfate	≤ 0.11%		
Clarity (NTU)		≤ 5	
Gel Strength (g/cm <sup>2</sup> )		≥ 600	≥ 1500
Gelling Temperature (°C)			≤ 35.5
Melting Temperature (°C)			≤ 80

\* EEO (electroendosmosis)



MS-8 Agarose gel, 3% concentration in 1XTAE 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 1XTAE buffer.

## MS-12

This molecular screening agarose is designed to have a larger gel network than MS-8 and is recommended for the separation of DNA fragments smaller than 1500 bp. Gels made with MS-12 have higher gel strength than competitive products. The gel is exceptionally firm but still flexible when handled, minimizing the danger of cracking or breaking. MS-12 has the same melting and gelling temperature as regular agaroses, allowing faster and easier preparation of gels. MS-12 also gives excellent resolution at concentrations of ≤ 1 %. This agarose is recommended for all analytical applications, especially when DNA is recovered for subsequent use in enzymatic procedures.

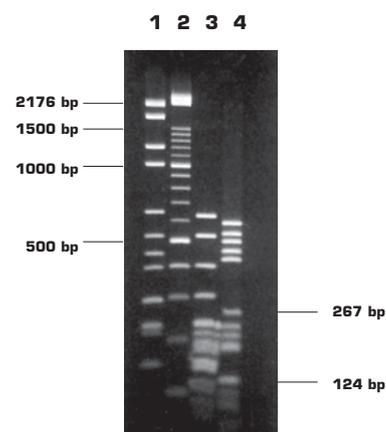
### Functional Tests

- DNA resolution: bands appear sharp and finely resolved.
- DNase/RNase activity: none detected.
- Gel background: very low after Et.Br. staining.
- Blotting: very good transference for DNA fragments 154 – 2176 bp in 4 % gels.
- DNA binding: very low.

### Specifications

	MS-12	1.5 %	4 %
Moisture	≤ 7%		
Ash	≤ 0.35%		
EEO*	≤ 0.12		
Sulfate	≤ 0.11%		
Clarity (NTU)		≤ 5	
Gel Strength (g/cm <sup>2</sup> )		≥ 2000	≥ 4200
Gelling Temperature (°C)			≤ 40.5
Melting Temperature (°C)			≤ 93

\* EEO (electroendosmosis)



MS-12 Agarose gel, 2% concentration in 0.5XTBE buffer.  
Markers:  
Lane 1- pBR328DNA, BglI+pBR328DNA, HinfI.  
Lane 2 - 100 bp ladder;  
Lane 3 - pBR322DNA, MspI.  
Lane 4 - pBR322DNA, HaeIII.  
Electrophoresis conditions: submarine gel, 2 hours, 4.5  
V/cm in 0.5XTBE buffer.