MS-12 Agarose

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.

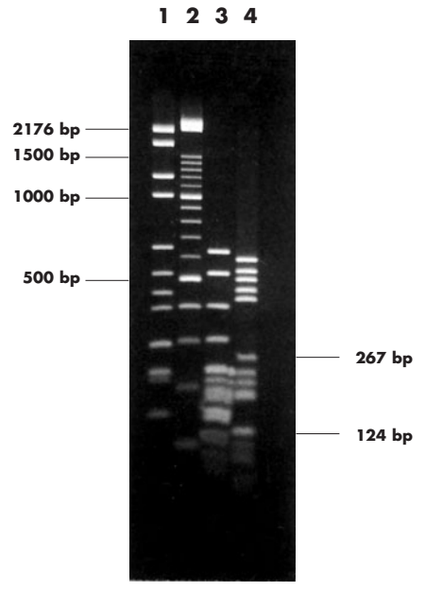
Gels made with MS-12 have higher gel strength than competitive products. The gel is exceptionally firm but still flexible when handled, minimizing the danger of cracking or breaking.

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 %.

MS-12 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 EtBr staining.
- Blotting: very good transference for DNA fragments 154 – 2176 bp in 4 % gels.
- DNA binding: very low.



MS-12 Agarose gel, 2% concentration in 0.5XTBE buffer.
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.

Specifications:

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

Ranges of separation:

	2 %	500 – 1500 bp
	4 %	150 – 600 bp

These ranges are approximate and have been calculated in 1XTAE buffer.

AGAROSE

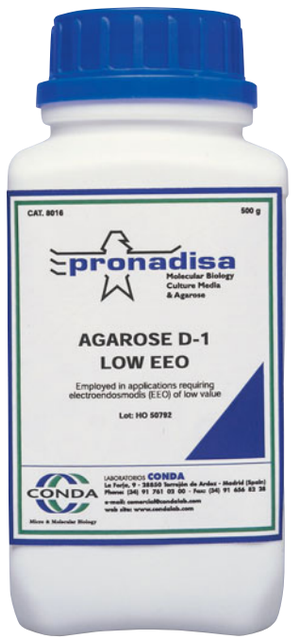
Agarose is a fractional part extracted from agar and is the basic responsible agent of the gelling power of the same.

Likewise, agar represents an important Gelification Hysteresis given the fact that it gelifies at temperatures between 32°C – 45°C and melts at temperatures between 80°C – 95°C.

Agarose is a natural product which forms an inert matrix which is extensively used in separation techniques such as Electrophoresis, Chromatography and others employed in Biochemistry and in Molecular Biology.

Likewise, it is a neutral and easily derivatizable product, to which structure, proteins such as enzymes, antigens or antibodies are easily affixed. The absence of toxicity in its structure also makes it a comfortable product to work about.

At present times it is an indispensable tool for nucleic acid separation in Genetic Engineering, Cell Culture and Microbiology.



APPLICATIONS

General applications of the different agarose types:

	Analytical Separation ≥ 1000 pb	Analytical Separation ≤ 1000 pb	Preparative Electrophoresis	PFGE	ADN Typing	Blotting	Fine Resolution	In-gel Applications	Cell -Tissue Culture
D1-LE	■				■	■			
D1-LE GQT	■		■		■	■			
D2	■								
D5	■			■		■			
LM2	■								
LM GQT	■		■					■	■
LM-SIEVE		■	■					■	
MS-4		■					■		
MS-8		■					■		
MS-12		■				■			
F.P. DNA	■				■	■			

AGAROSE TYPES

STANDARD AGAROSE

AGAROSE D1 LOW EEO (EEO ≤ 0.13)

For nucleic acids fragments with sizes ≥1.000 bp. This agarose is suitable for Blotting Essays.

Presence of DNAses and RNAses not detected.

Ref. 8012	100 grs.
Ref. 8014	250 grs.
Ref. 8016	500 grs.
Ref. 8008	1.000 grs.

AGAROSE D1 LOW EEO GQT (GENETIC QUALITY TESTED)

Highly purified agarose, with low levels of EEO with quality control certificate, GQT (Genetic Quality Tested). Recommended for DNA preparatory gels. Presence of DNAses and RNAses not detected.

Ref. 8017	100 grs.
Ref. 8018	250 grs.
Ref. 8015	500 grs.

AGAROSE D1 MEDIUM EEO (EEO 0.16-0.19)

Recommended for electrophoresis of serum proteins and immunoelectrophoresis.

Ref. 8020	100 grs.
Ref. 8021	250 grs.
Ref. 8022	500 grs.
Ref. 8023	1.000 grs.

AGAROSE D1 HIGH EEO (EEO 0,23-0,26)

Suitable agarose for crossed immunoelectrophoresis.

Ref. 8025	100 grs.
Ref. 8026	250 grs.
Ref. 8027	500 grs.
Ref. 8028	1.000 grs.

AGAROSE D2 HIGH GELLING TEMPERATURE

Recommended agarose for Agarose Beads preparation, it can also be used for protein electrophoresis and crossed immunoelectrophoresis

Presence of DNAses and RNAses not detected.

Ref. 8033	100 grs.
Ref. 8034	250 grs.
Ref. 8038	500 grs.

AGAROSE D5 HIGH STRENGTH GEL

Specific agarose for pulsed fields electrophoresis, recommended for DNA > 1000 bp separation, by conventional electrophoresis and for DNA with a size of several megabases sizes by "Pulse Field Gel Electrophoresis". Presence of DNAses and RNAses not detected.

Ref. 8045	100 grs.
Ref. 8046	250 grs.
Ref. 8048	500 grs.

AGAROSE F.P. DNA

The Agarose "Finger Printing DNA" is specifically used for paternity testing, cell lines verification, tissue typing, etc.

Ref. 8090	50 grs.
Ref. 8089	100 grs.

AGAROSE WITH LOW MELTING AND GELLING POINTS

AGAROSE LM2 (LOW MELTING POINT)

Recommended agarose for ≥1.000 pb fragment separation in analytical and preparatory electrophoresis. The low melting point of this agarose (65°C) allows the same to melt without damaging the double DNA helix.

Presence of DNAses and RNAses not detected.

Ref. 8053	50 grs.
Ref. 8050	100 grs.
Ref. 8051	250 grs.

AGAROSE LM GQT

This agarose with quality control certificate, GQT (Genetic Quality Tested) is specially recommended for preparatory electrophoresis of nucleic acids >1.000 pb and In-Gel applications.

Ref. 8088	50 grs.
Ref. 8087	100 grs.
Ref. 8094	250 grs.

AGAROSE LM-SIEVE

Agarose with a very low melting point and a higher resolution capability for fragments ≤1.000 bp, special for PCR products, between 200-800 bp includes a quality control certificate GQT (Genetic Quality Test).

Ref. 8086	50 grs.
Ref. 8085	100 grs.
Ref. 8084	250 grs.
Ref. 8096	500 grs.

AGAROSE MS (MOLECULAR SCREEN) HIGH DNA RESOLUTION

AGAROSE MS-4

Specially recommended for DNA analytic gels of <500 bp. Presence of DNAses or RNAses not detected nor it presents DNA binding.

Ref. 8079	50 grs.
Ref. 8075	100 grs.
Ref. 8076	250 grs.

AGAROSE MS-8

Recommended for DNA analytic gels of < 1.000 bp and specially for PCR products. Presence of DNAses or RNAses not detected nor it presents DNA binding.

Ref. 8058	50 grs.
Ref. 8065	100 grs.
Ref. 8066	250 grs.
Ref. 8064	500 grs.

AGAROSE MS-12

Recommended for DNA analytic gels for at 2% concentrations; it can separate fragments of 100-1500 bp. Presence of DNAses or RNAses not detected nor it presents DNA binding.

Ref. 8074	50 grs.
Ref. 8067	100 grs.
Ref. 8068	250 grs.
Ref. 8069	500 grs.

STANDARD CONCENTRATIONS FOR DNA RESOLUTION

BUFFER 1X TAE	GEL CONCENTRATION	BUFFER 1X TBE
Range (bp)	%	Range (bp)
D1-LE / D1-LE GQT		
20000 -1000	0.6	15000-1000
12000-500	0.8	10000-500
8000-300	1.0	7000-250
6000-200	1.2	5000-200
3500-100	1.5	3000-100
2000-50	2.0	2000-50
D5		
40000 - 3000	0.3	20000 - 2000
22000 - 2000	0.5	12000 - 1500
15000 - 1000	0.8	9000 - 1000
10000 - 400	1.0	6000 - 500
5000 - 200	1.8	3000 - 200
MS-8		
1500 - 100	2.0	1200 - 100
1000 - 50	3.0	700 - 40
500 - 20	4.0	200 - 20
300 - 10	5.0	<100
MS-12		
2500 - 700	2.0	1500 - 500
1200 - 500	3.0	800 - 100
700 - 100	4.0	500 - 50
250 - 30	5.0	250 - 20
LM SIEVE		
1500 - 500	2.0	1000 - 400
700 - 150	3.0	500 - 100
300 - 70	4.0	150 - 10
50 - 10	5.0	<30
LM2 / LM GQT		
20000 - 500	0.75	12000 - 500
16000 - 300	1.00	8000 - 300
10000 - 250	1.25	4000 - 200
5000 - 200	1.50	3000 - 150
2500 - 100	1.75	2000 - 100
1500 - 50	2.00	1000 - 50

CONDA

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