EUROPE
LIEGE SCIENCE PARK • 4102 Seraing • Belgium • Tel.: +32 4 372 74 00
Fax: +32 4 372 75 00 • info@eurogentec.com • www.eurogentec.com

NORTH AMERICA
ANASPEC - 34801 Campus Drive • Fremont, CA 94555 • USA
Tel.: 510-791-9560 • toll-free: 800-452-5530 • Fax: 510-791-9572
info.anaspec@eurogentec.com • www.eurogentec.com

Eurogentec
Experience true partnership

Agarose Molecular Biology Grade
EP-0010-01 • EP-0010-05 • EP-0010-10 • EP-0010-SA05

Eurogentec products are sold for research or laboratory use only and are not to be administrated to humans or used for medical diagnostics.

Description

Agarose is a purified linear galactan hydrocolloid isolated from agar or agar-bearing marine algae.

Structurally, it is a linear polymer consisting of alternating D-galactose and 3,6-anhydro-L-galactose units.

Molecular Biology Grade agarose is ideally suited for routine analysis of DNA or RNA by gel electrophoresis and blotting.

As a gelling agent, agarose is used:

1. To separate nucleic acids electrophoretically because its gels have larger pore sizes than polyacrylamide gels at low concentrations. Unlike polyacrylamide, the consistency of the gels is more solid (but also less elastic);
2. To demonstrate cross reaction in IEP (Immuno electrophoresis) and Ouchterlony (double diffusion) plates in which antibody-antigen precipitin lines are studied;
3. To make gel plates or overlays for cells in tissue culture;
4. To form a gel matrix (either beaded and/or crosslinked), which can be used in chromatographic separations.

Package content

Reagent	Reference	Quantity
Molecular Biology Grade Agarose	EP-0010-01 EP-0010-05 EP-0010-10 EP-0010-SA05	100 g 500 g 2 x 500 g 5 g sample

Shipping conditions

Shipped at ambient temperature.

Storage

The Agarose Molecular Biology Grade can be stored at room temperature.

Quality control

Each lot is tested for DNase, RNase activity, melting point, gelation temperature, gel strength, electroendosmosis and absence of sulfate

Protocol

Description	Values
Nucleic acid length range	> 1000 bp
Gelling temperature	37 – 39 °C
Melting Temperature	88-90 °C
Gel Strength	< 1500 g/cm^2
DNAse or RNAse activity	ND
DNA binding	ND
Electroendosmosis	0.05 – 0.1
Sulfate	< 0.1 %

ND: Non Detected

1. Weigh the appropriate amount of agarose depending on the concentration required into an Erlenmeyer flask.
2. Add the running buffer to obtain the appropriated final volume; the flask should not be more than half full.
3. Shake the solution to mix.
4. Heat the solution in a microwave (500 W is recommended) or boiling water bath until agarose completely dissolves. Cover to minimize evaporation but ensure that the lid is loose to avoid buildup of

EUROPE
LIEGE SCIENCE PARK • 4102 Seraing • Belgium • Tel.: +32 4 372 74 00
Fax: +32 4 372 75 00 • info@eurogentec.com • www.eurogentec.com

NORTH AMERICA
ANASPEC - 34801 Campus Drive • Fremont, CA 94555 • USA
Tel.: 510-791-9560 • toll-free: 800-452-5530 • Fax: 510-791-9572
info.anaspec@eurogentec.com • www.eurogentec.com

Eurogentec
Experience true partnership

pressure. Be careful not to let the solution boil as it becomes super-heated.

5. Cool down the agarose to 55-60 °C.

6. Pour the agarose onto the gel tray.

Agarose concentration (% W/V)	DNA fragment range (kb)	Agarose (g)	Final Volume (ml)
0.7	0.8-12	0.70	100
1.0	0.5-10	1.00	100
1.5	0.2-3	1.50	100
2.0	0.1-2	2.00	100

The percentage of gel used depends on the size of DNA to be separated. Low percentage gel separates high M.W. DNA while high percentage gel separates low M.W. DNA

Useful information

Buffer	Concentration/ composition of working solution	Composition of 1 liter stock solution
TAE	1x : 40 mM Tris-acetate, 1mM EDTA	50 x: 242 g Tris base, 57.1 ml glacial acetic acid, 100 ml 0.5 M EDTA, pH 8 Adjust volume to 1 liter with H_2O
TBE	0.5x: 45 mM Tris-borate, 1mM EDTA	5 x: 54 g Tris base, 27.5 g boric acid, 20 ml 0.5mM EDTA, pH 8 Adjust volume to 1 liter with H_2O

Related products

Reagent	Package size	Reference
Agarose Small Fragments	50 g 100 g	EP-0020-05 EP-0020-10
AgaTabs	150 g (300 tablets)	EP-0030-15
Mupid®-One electrophoresis system	1	MU-0041
SmartLadder DNA ladder	1000 lanes	MW-1700-10
Smart Ladder SF	400 lanes	MW-1800-04

For further information please contact our Customer Help Desk:

For Europe:
E-mail: info@eurogentec.com
Tel: +32 4 372 76 65

For USA:
E-mail: info.usa@eurogentec.com
Tel: +1 858 793 26 61

TDS-EP-0010-0917-V5