Biozym Sieve 3:1 Agarose

Introduction

Biozym Sieve 3:1 is a standard gelling / melting temperature Agarose for analytical electrophoresis with a unique high resolving capacity. DNA fragments between 50 and 1,000 bp can be finely resolved. High gel strength combined with low viscosity gels allow easy handling even at high concentrations above 4%. Low concentration gels with 1 – 1.5% are recommended for blotting.

Use chilled buffer for preparation – see instructions on following page!

Biozym Sieve 3:1 Agarose has no detectable DNase or RNase activity.

Specifications

Moisture:	≤ 10%
Electroendosmosis:	≤ 0.13
Sulphate:	≤ 0.15%
Gel Strength 4%:	≥ 1400 g/cm^2
Gelling Temperature 4%:	32.5 - 38°C
Melting Temperature 4%:	≤ 90°C
DNase/ RNase activity:	None detected
DNA binding:	None detected

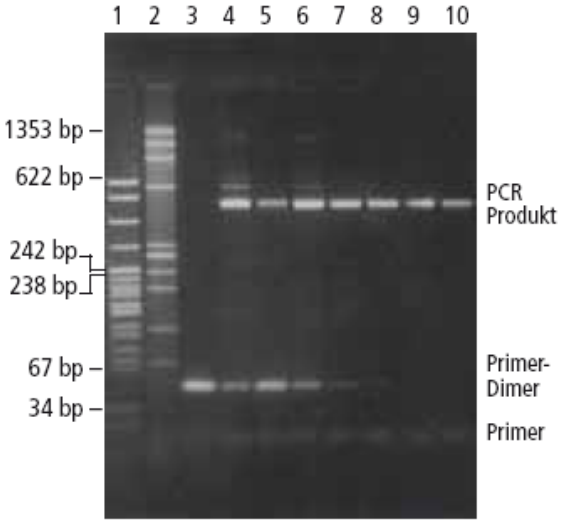
Applications

- Analytical and high separations
- Blotting techniques

Recommended Agarose Concentrations

Size Range	Final Agarose Concentration %	
(base pairs)	1 x TAE Buffer	1 x TBE Buffer
500 – 1,000	3.00	2.00
100 – 500	4.00	3.00
10 – 100	6.00	5.00

Auftrennung von PCR Produkten



Analyse von PCR Produkten in einem 4 %igen Biozym Sieve 3:1 Agarosegel. Eine 550 bp große Sequenz aus *Lambda* DNA wurde mit Hilfe eines GeneAmp®-Kits über 25 Zyklen amplifiziert.

Bahn 1: *Msp*I verdaute pBR322 DNA (1.5 µg DNA)
Bahn 2: *Hae*III verdaute ϕX174 DNA (1.5 µg DNA)
Bahn 3: Negativkontrolle ohne Template (7 µl einer 100 µl Mischung pro Reihe)
Bahn 4-9: PCR Produkte aus verschiedenen Reaktionsbedingungen (7 µl einer 100 µl Mischung pro Reihe)
Bahn 10: Positivkontrolle mit Template

Laufbedingungen: 3 mm Gel, TAE Puffer in horizontaler 20 cm Kammer, 5 V/cm, 3 Stunden

Precautions

Please refer to Material Safety Data Sheet for safety and handling information. Always wear eye protection when dissolving agarose and guard yourself and others against scalding solutions.

Microwave Instructions for Agarose Preparation

- Choose a beaker that can hold 2-4 times the volume of the desired solution.
- Add **chilled** 1X or 0.5X electrophoresis buffer and a stir bar to the beaker.
- Slowly sprinkle in the agarose powder into the liquid while rapidly stirring to prevent clumping.

- Remove the stir bar if not Teflon® coated.
- Soak the agarose in the buffer for 15 minutes and weigh the beaker and solution before heating.
- Cover the beaker with plastic wrap and pierce a small hole in the wrap for ventilation.
- Heat the beaker in the microwave oven on **medium** power for 2 minutes. You may also heat the beaker just for 1 minute, allow the solution to stand 15 minutes and finally heat on medium power for 2 minutes.
- Remove the beaker from the microwave oven. Caution: Any microwaved solution may become superheated and foam over when agitated.
- GENTLY swirl the beaker to resuspend any settled powder and gel pieces and reheat the beaker on high power until the solution comes to a boil. Hold at boiling point for until all of the particles are dissolved (approx. 1 minute).
- Remove the beaker from the microwave oven and GENTLY swirl the beaker to thoroughly mix the agarose solution.
- After dissolution, add sufficient hot distilled water to obtain the initial weight and mix thoroughly.
- Cool the solution to 50ºC-60ºC prior to casting.

Hot Plate Instructions for Agarose Preparation

- Choose a beaker that can hold 2-4 times the volume of the desired solution.
- Add **chilled** 1X or 0.5X electrophoresis buffer and a stir bar to the beaker.
- Slowly sprinkle in the agarose powder into the liquid while rapidly stirring to prevent clumping. Weigh the beaker and solution before heating.
- Cover the beaker with plastic wrap and pierce a small hole in the wrap for ventilation.
- Bring the solution to a boil while stirring.
- Maintain gentle boiling until all the agarose is dissolved (approximately 10 minutes).
- Add sufficient hot distilled water to obtain the initial weight.
- Mix thoroughly and cool the solution to 50°C-60°C prior to casting.

Ordering Information

Catalog No.	Size
850091	25 g
850090	125 g
850094	500 g

Contact

For more information about this or other Biozym products, please contact us at:
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For Research Use.
Not for use in *In-Vitro* Diagnostic Procedures.

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