High resolution agarose

Data sheet

Order-No. BS 20.48.0TM	**5g**
Order-No. BS 20.48.025	**25g**
Order-No. BS 20.48.100	**100g**
Order-No. BS 20.48.250	**250g**

(For research and *in vitro* application only)

Lot-No.:

Best before:

Appearance: homogeneous powder

Colour: white

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High resolution agarose

Description

Bio&SELL high resolution agarose is specially designed and optimized for separation of nucleic acids in a range of 20bp – 800bp.

Analytical specification

Gel strength (1,0%):	> 300 g/cm2
Gelling temperature (1,5 %):	< 35 °C
Elektroendosmosis (-mr)	< 0,5
Amount of water	< 10,0 %
DNA-Binding	not detectable
DNase- a. RNase activity	not detectable

Proposed agarose concentrations

Fragmentsize (bp)	Endconcentration Agarose (%)	
	1x TAE-Puffer	1x TBE-Puffer
50 – 800	2,0	1,8
100 – 600	3,0	2,0
50 – 250	4,0	3,0
20 – 130	5,0	4,0
< 80	-	5,0

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Preparation of the agarose:

►►► **Note:** For 100 ml of a 1% agarose gel prepare 1 g of agarose in 100 ml electrophoresis buffer.

Method 1: Microwave

1. Select a flask which can uptake the two- to fourfold of the final volume of gel solution

2. Add **cooled** 1x or 0,5x electrophoresis buffer and a magnetic stir bar to the flask.

3. Place the flask on a magnetic stirrer and slowly intersperse the agarose. Stirr fast at all time to avoid clumping.

4. Take out the magnetic stir bar if it is not teflon coated.

5. Incubate the agarose solution for 15 minutes before heating. This will reduce foaming during heating.

6. Weigh the flask.

7. Close the flask with plastic wrap. Make a small opening in the plastic wrap for ventilation.

8. For **agarose concentrations > 4%, perform the following additional steps** to avoid foaming:

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A. Heat the flask in the microwave at **medium** power for 1 minute.
B. Take out the flask from the microwave.
C. Allow the solution to cool down for 15 minutes on the bench.

9. Heat the flask in the microwave at **medium** power for 2 minutes.

10. Take out the flask from the microwave.
    Attention: boiling retardation possible!

11. **Carfully** shake the flask to resuspend agarose which has not been dissolved yet.

12. Heat the flask at **high** power in the microwave until the solution is boiling.

13. **Let boil for 1 minute** until all particles are dissolved.

14. Take out the flask from the microwave.

15. **Carfully** shake the flask to mix the solution well.

16. Weigh the flask again and adjust lost weight by the addition of warm, destilled water.

17. Mix the solution well.

18. Let the solution cool down at room temperature until a temperature of 50 – 60 °C is reached. After casting of the gel, let it further cool down at room temperature until the gel is stable. **Cool another 20 minutes at 4 °C** to reach optimum resolution and handling.

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Method 2: Heating plate

1. Select a flask which can uptake the two- to fourfold of the final volume of gel solution.

2. Add **cooled** 1x or 0,5x electrophoresis buffer and a magnetic stir bar to the flask.

3. Place the flask on a magnetic stirrer and slowly intersperse the agarose. Stirr fast at all time to avoid clumping.

4. Weigh the flask.

5. Close the flask with plastic wrap. Make a small opening in the plastic wrap for ventilation.

6. Allow the solution to boil while stirring it.

7. Allow to boil it further until the agarose is completely dissolved (approx. 10 minutes).

8. Weigh the flask again and adjust lost weight by the addition of warm, destilled water.

9. Mix the solution well.

10. Let the solution cool down at room temperature until a temperature of 50 – 60 °C is reached. After casting of the gel, let it further cool down at room temperature until the gel is stable. **Cool another 20 minutes at 4 °C** to reach optimum resolution and handling.

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Technische Daten

Gel strength of agarose: Die gel strength, specified in g/cm2 at a given agarose concentration indicates the stability of the completed gel.

Gelling temperature of agarose: gelation range of temperature in which the gel reach its end consistency.

Elektroendosmosis of agarose: The smaller the elektroendosmosis the better the agarose. A small value for elektroendosmosis (< 0,12) characterize a high quality agarose, which is most suitable for gel elektrophorestic labour.

Content of sulphate of agarose: A small content of sulphate indicates a high quality agarose.

Shipment: at room temperature

Storage: at room temperature

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Notes

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cDNA synthesis extreme fast and precise because of the Taq-DNA-Polymerase with proof-reading-activity

Bio&SELL
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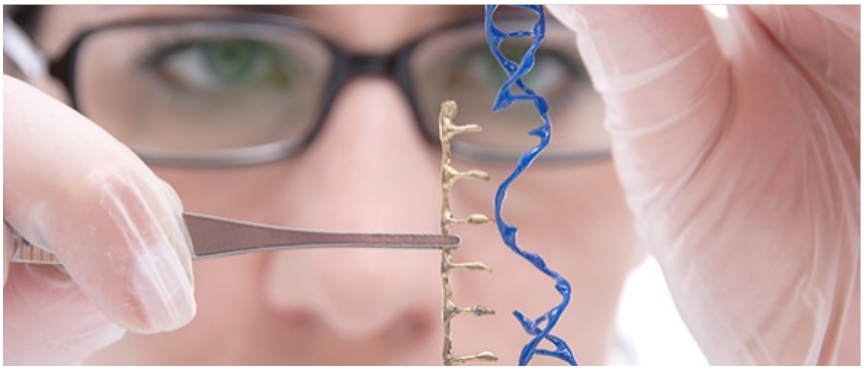
For the synthesis of first-strand cDNA: by highly structured and long cDNA fragments, an extreme sensitive and specific RT-PCR and DNA labeling.



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cDNA-Kits SCRIPTUM
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