
BIOTOOLS HIGH PURITY AGAROSE

Performance tested for separation and manipulation of DNA and RNA

Introduction

Biotoools High Purity Agarose is a standard gelling temperature, high gel strength agarose for resolving DNA fragments between **250 bp** to **22,000 bp**. This agarose is specially designed for preparative DNA electrophoresis.

High Purity Agarose is an **ultrapure biotechnology grade** agarose. This agarose has **no detectable DNase; RNase; or protease activity**. High Purity Agarose has a **low EEO (<0.13)** for shorter electrophoretic runs with excellent resolution of bands and low background.

Applications

- ✓ Preparative DNA and RNA electrophoresis
- ✓ Analytical electrophoresis of DNA and RNA
- ✓ Northernblot and Southernblot

Properties of Agarose

Gelling temperature*: 37.5±1.5°C

Melting temperature*: 88±1°C

Gel strength*: ≥1200 g/cm²

Sulfate: ≤0.15%

*1.5% gels

Suggested Agarose Concentration

Size Range (bp)	Gel %	Recommended Buffer
800-22,000	0.8	TAE
500-10,000	1.0	TAE/TBE
400-7,000	1.2	TAE/TBE
250-5,000	2.0	TBE

Microwave Instruction for Agarose Preparation (gels ≤ 3%)

1. Choose a beaker that can hold 2-4 times the desired gel volume.
2. Slowly add agarose powder to 1X buffer solution (TAE or TBE) while gently swirling the container.
3. Weigh the beaker containing the buffer and agarose before heating.
4. Cover the beaker with plastic wrap and pierce a small hole in the wrap for ventilation.
5. Heat the beaker in a microwave oven on high power for 30 sec or until comes to boil (*heating times may vary depending on microwave wattage, gel volume and agarose concentration*).
6. Carefully swirling the container with agarose solution.
Caution: Any microwaved solution may become superheated and over when agitated.
7. Repeat steps 5 and 6 until agarose dissolves completely.
8. Remove the solution from the oven very carefully and allow to cool briefly (1-2 min) at room temperature. Cool the solution to 50-55 °C and if desired, a visualization dye (e.g. ethidium bromide) may be mixed into the agarose solution.
9. Reweigh the container to determine the loss of water by evaporation and add sufficient hot distilled water to obtain the original weight. Gently swirl the solution.
10. Pour the agarose solution into the prepared casting unit.
11. Allow the gel to completely solidify at room temperature, approximately 30-45 min.

Ordering Information

DESCRIPTION	Size	Reference
<i>Biotoools High Purity Agarose</i>	100 g	4756
	250 g	4757