

Certified™ agarose powders



BIO-RAD

A full selection of for

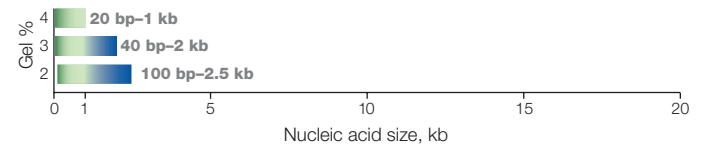
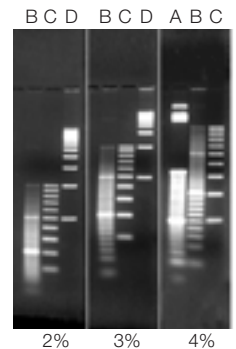
Certified™ agarose powders are genetic quality tested (GQT) grade to guarantee product quality and to ensure confidence in both routine separations and downstream molecular biology applications. This new line, which replaces our previous agarose powders, offers a complete selection of specialty agaroses, allowing you to choose the product optimal for your research needs. In addition, the product names are application oriented, simplifying your selection process. These ultrapure, high-strength, GQT grade Certified agarose powders are an outstanding value.

► Certified PCR Agarose

Certified PCR agarose is suggested for separations of DNA fragments 20 bp to 1,000 bp. This high-strength agarose forms gels that are easy to handle and remain flexible even at high gel percentages, reducing the risk of cracking or breaking. Unlike GQT products with similar sieving properties, PCR agarose is a standard gelling temperature agarose, making it faster and easier to prepare.

Analytical Specifications and Functional Tests

Moisture	≤7%
Ash	≤0.35%
Electroendosmosis (-m _p)	≤0.12
Sulfate	≤0.11%
Clarity (Np)	≤50
Gel strength, 1.5% (g/cm ²)	≥2,000
Gel strength, 4% (g/cm ²)	≥4,200
Gelation temperature (°C)	40
Melting temperature (°C)	93
DNase/RNase activity	None detected
DNA binding	None
Gel background staining	Very low

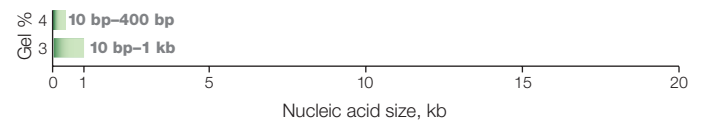
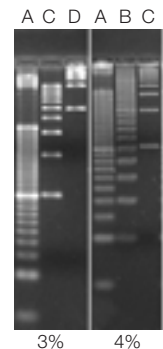


► Certified Low Range Ultra Agarose

This agarose provides exceptional resolution of small PCR fragments and primers (~10 bp to 200 bp) at lower concentrations than standard gels. A 3% gel clearly resolves a 10 bp ladder, and a 4% gel approaches the resolution of an 8% polyacrylamide gel.

Analytical Specifications and Functional Tests

Moisture	≤7%
Ash	≤0.35%
Electroendosmosis (-m _p)	≤0.12
Sulfate	≤0.11%
Clarity (Np)	≤50
Gel strength, 1.5% (g/cm ²)	≥600
Gel strength, 3% (g/cm ²)	≥1,500
Gelation temperature (°C)	35
Melting temperature (°C)	80
DNase/RNase activity	None detected
DNA binding	None detected
Gel background staining	Very low

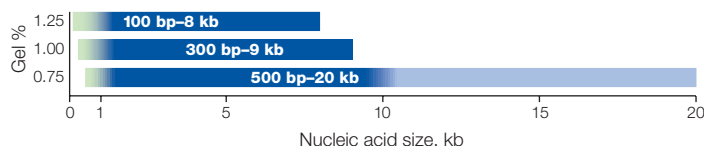
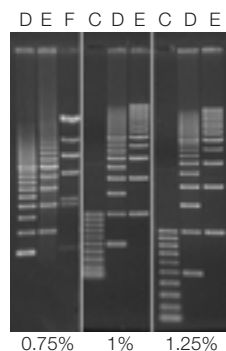


► Certified Molecular Biology Agarose

Certified molecular biology agarose is our general-purpose agarose recommended for routine separations of ~500 bp to 20 kb. This agarose is used to manufacture 0.8% and 1% ReadyAgarose™ gels. Like the entire line of Bio-Rad agarose powders, Certified molecular biology agarose is GQT grade, ensuring that DNA recovered from a preparative gel can be manipulated without compromising quality. The gels have high strength so they are easy to handle even at low agarose percentages, and have a high exclusion limit. The high electrophoretic mobility increases resolution and reduces the run time.

Analytical Specifications and Functional Tests

Moisture	≤7%
Ash	≤0.25%
Electroendosmosis (-m _p)	≤0.12
Sulfate	≤0.12%
Clarity (Np)	≤40
Gel strength, 1% (g/cm ²)	≥1,800
Gel strength, 1.5% (g/cm ²)	≥3,200
Gelation temperature (°C)	36
Melting temperature (°C)	88
DNase/RNase activity	None detected
DNA resolution ≥1,000 bp	Finely resolved
Gel background staining	Very low



Lane legend

A = 10 bp ruler; B = 20 bp ruler; C = 100 bp ruler; D = 500 bp ruler; E = 1 kb ruler; F = lambda *Hind*III digest

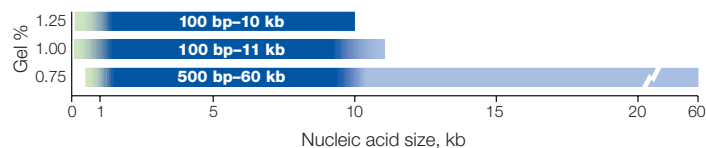
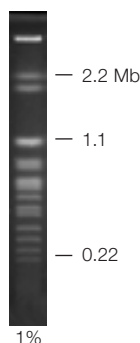
quality-tested agaroses every research need

▶ Certified Megabase Agarose

Certified megabase agarose has a high exclusion limit, high electrophoretic mobility, and a very high gel strength. This agarose is the optimal choice for CHEF and FIGE applications. The gel remains easy to handle at concentrations as low as 0.3% and allows shorter run times. In addition, low background staining provides superior imaging of high molecular weight DNA.

Analytical Specifications and Functional Tests

Moisture	≤7%
Ash	≤0.25%
Electroendosmosis (-m _p)	≤0.12
Sulfate	≤0.12%
Clarity (Np)	≤40
Gel strength, 1% (g/cm ²)	≥1,800
Gel strength, 1.5% (g/cm ²)	≥3,200
Gelation temperature (°C)	36
Melting temperature (°C)	88
DNase/RNase activity	None detected
DNA resolution ≥1,000 bp	Finely resolved
Gel background staining	Very low

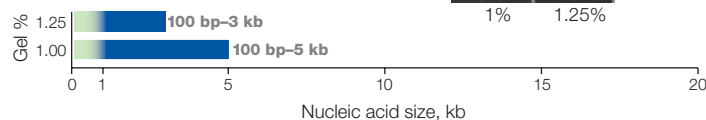
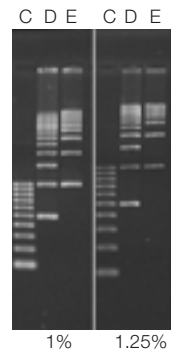


▶ Certified Low-Melt Agarose

This low melting temperature agarose has a high resolving capacity for DNA fragments ≥1,000 bp. It is suggested for preparative electrophoresis and in-gel applications such as digestion, ligation, PCR, transformation, and sequencing. This agarose is also recommended for embedding chromosomes and megabase-sized DNA for pulsed field applications.

Analytical Specifications and Functional Tests

Moisture	≤7%
Ash	≤0.4%
Electroendosmosis (-m _p)	≤0.12
Sulfate	≤0.1%
Gel strength, 1% (g/cm ²)	≥250
Gelation temperature (°C)	26 (for 1.5%)
Melting temperature (°C)	65 (for 1.5%)
DNase/RNase activity	None detected
DNA binding	None detected
Gel background staining	Very low

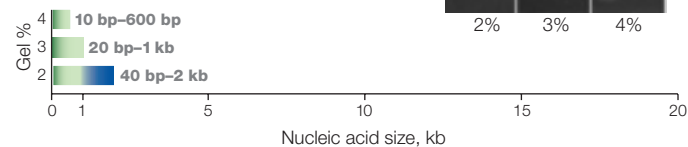
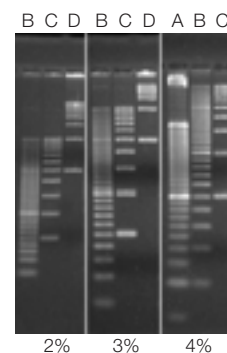


▶ Certified PCR Low-Melt Agarose

Certified PCR low-melt agarose has a high sieving capacity and yields excellent resolution of fragments <1,000 bp in a low-melt or preparative format. This agarose is ideal for digestion by agarase and for all in-gel applications.

Analytical Specifications and Functional Tests

Moisture	≤5%
Ash	≤0.3%
Electroendosmosis (-m _p)	≤0.10
Sulfate	≤0.12%
Gel strength, 4% (g/cm ²)	≥1,000
Gelation temperature (°C)	35 (for 4% gel)
Melting temperature (°C)	65 (for 4% gel)
DNase/RNase activity	None detected
DNA binding	None detected
Gel background staining	Very low

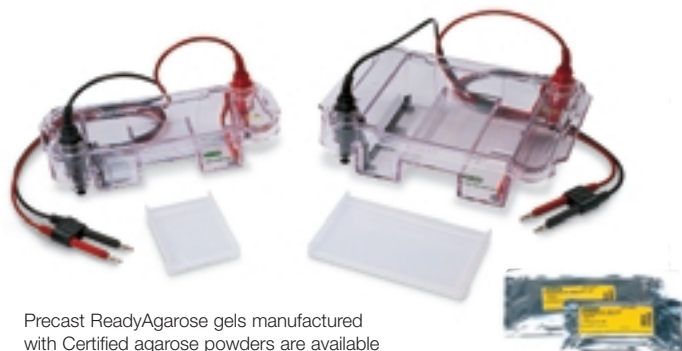


▶ Pulsed Field Certified Agarose

This agarose performs excellent separation and resolution of large DNA in pulsed field gel applications. The optimal separation range is 1 kb to 2 Mb. While gels cast with this agarose have longer PFGE run times than Certified megabase agarose, running conditions for this agarose are a preset selectable method of the CHEF Mapper[®] XA autoalgorithm.

Analytical Specifications and Functional Tests

Electroendosmosis (-m _p)	≤0.15
Gel strength, 1.5% (g/cm ²)	≥2,500
Gelation temperature (°C)	38
Sulfate	≤0.35%
Gel background staining	Very low



Precast ReadyAgarose gels manufactured with Certified agarose powders are available for your convenience. For more information on ReadyAgarose gels, refer to bulletin 2648.

Certified Agarose Powders Selection Guide

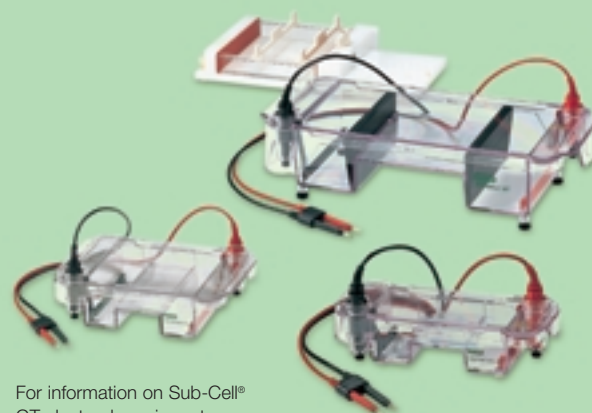
Application	Agarose						
	Certified Molecular Biology Agarose (200 bp–20 kb)	Certified PCR Agarose (20 bp–1 kb)	Certified Low Range Ultra Agarose (10 bp–800 bp)	Certified Megabase Agarose (1 kb–5 Mb)	Certified Low-Melt Agarose (DNA fragments ≥1,000 bp)	Certified PCR Low-Melt Agarose (DNA fragments <1,000 bp)	Pulsed Field Certified Agarose (1 kb–2 Mb)
Preparative: Quantum Prep® methods	•	•	•	•			
Preparative: Low-melt methods					•	•	
Preparative: Agarase methods					•	•	
Preparative: In-gel applications					•	•	
Postpreparative enzymatic treatments	•	•	•	•	•	•	
Tissue/cell culture				•			
Pulsed field sample preparation					•		
Blotting	•	•		•			•
CHEF Mapper XA autoalgorithm	•			•			•
CHEF Mapper XA autoalgorithm preset pulsed field method							•

Ordering Information

Catalog #	Size
Certified Molecular Biology Agarose	
161-3100	25 g
161-3101	125 g
161-3102	500 g
Certified PCR Agarose	
161-3103	25 g
161-3104	125 g
161-3105	500 g
Certified Low Range Ultra Agarose	
161-3106	25 g
161-3107	125 g
Certified Megabase Agarose	
161-3108	25 g
161-3109	125 g
161-3110	500 g

Catalog #	Size
Certified Low-Melt Agarose	
161-3111	25 g
161-3112	125 g
Certified PCR Low-Melt Agarose	
161-3113	25 g
161-3114	125 g
161-3115	500 g
Pulsed Field Certified Agarose	
162-0137	100 g
162-0138	500 g

If you would like samples of Certified agarose powders, please contact your local sales representative.



For information on Sub-Cell® GT electrophoresis systems, visit us on the Web and refer to bulletin 2660 online or request a copy from your local sales representative.

The polymerase chain reaction (PCR) process is covered by patents owned by Hoffman-LaRoche. Use of the PCR process requires a license.

BIO-RAD

**Bio-Rad
Laboratories, Inc.**

Life Science
Group

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