

RESolute™ Wide Range Agarose

Introduction

BIOzym RESolute™ agarose is a high gel strength agarose designed for a wide range of molecular biology techniques varying from conventional constant field to pulsed field electrophoresis (PFGE). RESolute™ agarose has a great versatility in working concentrations of 0.4% - 2%. DNA fragments from 50 bp to 10 kb can be separated in one 1% gel through conventional electrophoresis. RESolute™ is suitable for blotting assays, reduces electrophoresis time and improves the separation of very large DNA fragments.

Specifications

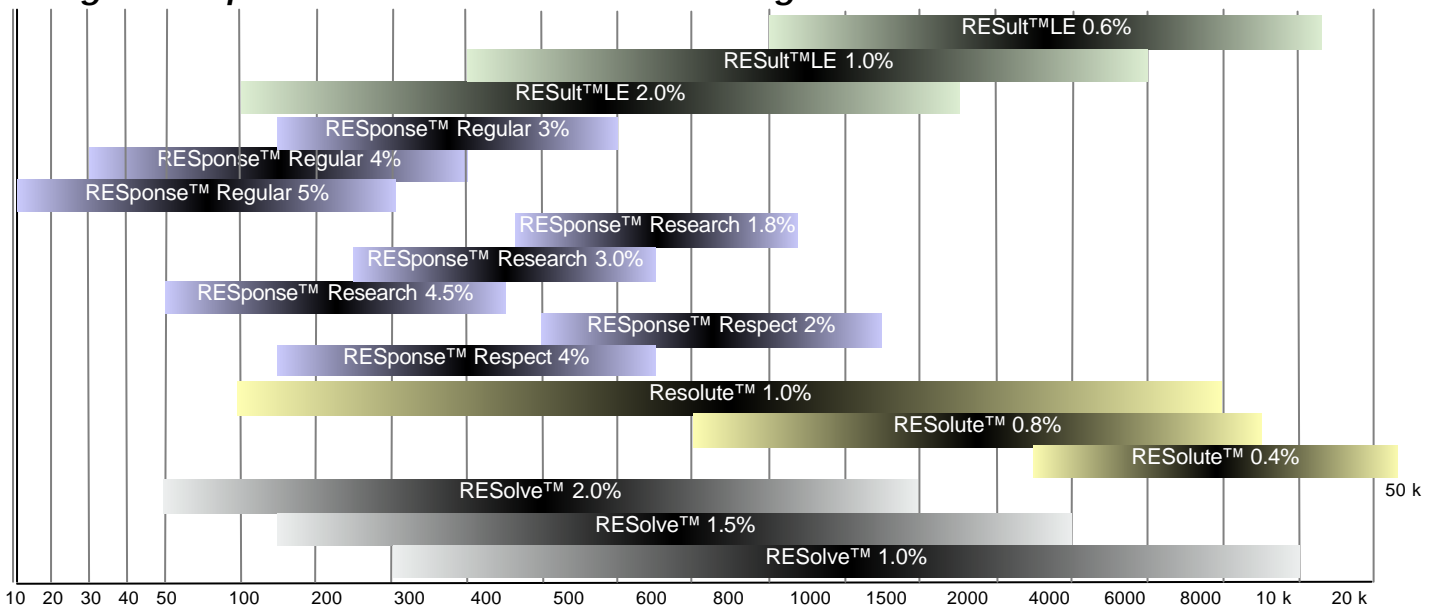
Gelling temperature (1.5%)	± 36°C
Melting temperature (1.5%)	± 88°C
EEO (-Mr)	< 0.12
Gel strength (g/cm ²)	1% : 1.750
	1.5% : 3.250

Approximate ranges of separation

(in 1x TAE buffer)

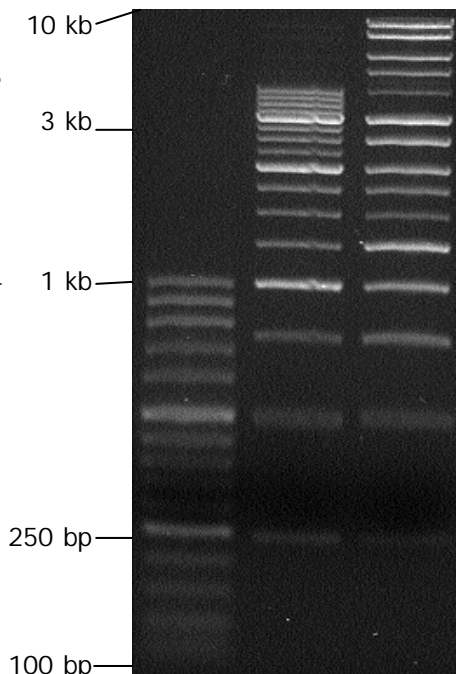
0.4%	5000 - 50.000 bp
0.8%	800 - 15.000 bp
1.0%	100 - 10.000 bp

Ranges of Separation for all RESource™ Line Agaroses



Approximate ranges of separation, size in basepairs (in 1x TAE)

Separation of DNA markers in 1% RESolute™ gel. Lane A: BIOzym Low Ladder. Lane B: BIOzym Medium/Mass Ladder. Lane C: BIOzym High/mass ladder. Running conditions: 1x TBE buffer, 1.5 hour at 5 V/cm.



Applications

Separation of PCR Products
 Analytical determination of DNA/RNA
 Suitable for use in blotting assays
 Varying from conventional constant field to pulsed field electrophoresis

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Dissolving RESolute™ Wide Range Agarose

Microwave instructions

Choose a beaker that is 2-4 times bigger than the volume of the solution.

Place it on a magnetic stirrer and slowly sprinkle the agarose powder at room temperature into the buffer while stirring rapidly, to prevent the formation of clumps.

Remove the stir bar if not Teflon® coated.

Soak the agarose in the buffer for 15 minutes before heating, to reduce the tendency of the agarose solution to foam during heating.

Weigh the beaker and solution before heating. Cover the beaker with plastic wrap and pierce a small hole in the plastic for ventilation.

Heat the beaker in the microwave oven at high power for 1-2 minutes

Gently swirl to resuspend any agarose particles not yet dissolved.

Caution: Any microwave solution may come superheated and foam over when agitated.

Reheat 5-15 seconds until the solution comes to boil, leaving 10 seconds between each heating phase to allow any foam to settle. Continue until all of the agarose particles are dissolved.

Remove the beaker from the microwave oven, and gently swirl the agarose solution. Replace the lost weight by adding warm distilled water and mixing the solution gently.

Let the solution cool at room temperature for 15-20 minutes or until it reaches a temperature of 50-60°C. (Alternatively the solution can be left in a heated bath at 55°C for over 30 minutes.

Boiling water Bath instructions

Choose a beaker that is 2-4 times bigger than the volume of the solution.

Place on a magnetic stirrer and slowly sprinkle the agarose powder at room temperature into the buffer while stirring rapidly, to prevent the formation of clumps.

Soak the agarose in the buffer for 15 minutes before heating, to reduce the tendency of the agarose solution to foam during heating.

Weigh the beaker and solution before heating. Cover the beaker with plastic wrap and pierce a small hole in the plastic for ventilation.

Place the beaker in the bath and bring to boil while stirring constantly. Keep the flask in the bath for 15-20 minutes after starting to boil, or until the agarose is completely dissolved.

Stop stirring while keeping the beaker in the bath for an additional 15 minutes. Replace the lost weight by adding warm distilled water and mixing the solution gently.

Let the solution cool at room temperature for 15-20 minutes or until it reaches a temperature of 50-60°C. (Alternatively the solution can be left in a heated bath at 55°C for over 30 minutes.

Autoclave instructions

Choose a beaker that is 2-4 times bigger than the volume of the solution.

Place on a magnetic stirrer and slowly sprinkle the agarose powder at room temperature into the buffer while stirring rapidly, to prevent the formation of clumps.

Weigh the beaker and solution before heating. Cover the beaker with aluminum foil, sealing the opening completely to prevent spillover.

Autoclave at 121°C for 15 minutes.

Replace the lost weight by adding warm distilled water and mixing the solution gently.

Let the solution cool at room temperature for 15-20 minutes or until it reaches a temperature of 50-60°C. (Alternatively the solution can be left in a heated bath at 55°C for over 30 minutes.

Hot Plate instructions

Choose a beaker that is 2-4 times bigger than the volume of the solution.

Place on a magnetic stirrer and slowly sprinkle the agarose powder at room temperature into the buffer while stirring rapidly, to prevent the formation of clumps.

Soak the agarose in the buffer for 15 minutes before heating, to reduce the tendency of the agarose solution to foam during heating.

Weigh the beaker and solution before heating. Cover the beaker with plastic wrap and pierce a small hole in the plastic for ventilation.

Bring the solution to boil while stirring and maintain gently boiling until all agarose is dissolved.

Replace the lost weight by adding warm distilled water and mixing the solution gently.

Let the solution cool at room temperature for 15-20 minutes or until it reaches a temperature of 50-60°C. (Alternatively the solution can be left in a heated bath at 55°C for over 30 minutes.