

BIO-RAD
Explorer

SAVE TIME!

Easily Run Your
DNA Gels in Only
10 Minutes!

Bio-Rad Explorer

explorer.bio-rad.com

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Bio-Rad Explorer's scientists have developed a faster way to run DNA agarose gels! Using a lower concentration running buffer (0.25x TAE) and higher voltage (300 V), agarose gels can be run 33% faster. Advantages of this new formula include:

- Excellent gel resolution
- Reduced run time
- Fast separation of DNA in 0.8 to 4.0% agarose gels
- Compatibility with all Explorer kits

TAE buffer is provided as a 50x concentrate in Explorer kits and electrophoresis packs. It can be mixed with distilled water to yield the necessary concentrations for making agarose gels and electrophoresis running buffer. See [explorer.bio-rad.com](https://www.bio-rad.com) and the back page for ordering information for TAE and the agarose electrophoresis packs.



Follow these steps to make and run ten 7 x 10 cm gels. Scale as needed; for different quantities and sizes of gels, refer to the Large Class/Multiple Class Preparation Guide, which can be found by searching explorer.bio-rad.com for bulletin 5891.

1. Make ten agarose gels with 1x TAE buffer

- For 1% gels — add 5 g agarose to 490 ml distilled water and 10 ml 50x TAE
- For 3% gels — add 15 g agarose to 490 ml distilled water and 10 ml 50x TAE
- Follow kit manuals for preparing and storing agarose gels

For added convenience, 1% and 3% TAE Mini Ready Agarose Precast Gels are available. See the back page for ordering information.

2. Make 3 L of 0.25x TAE electrophoresis running buffer

- Add 15 ml of 50x TAE concentrate to 2.9 L of distilled water; or
- Add 750 ml of 1x TAE to 2,250 ml of distilled water

Important! Do not make gels with 0.25x TAE; doing so can lead to a loss of DNA resolution.

3. Run gels at 300 V

- Place the gel in the electrophoresis chamber
- Pour in just enough 0.25x TAE to submerge the gel
- Run the gel at 300 V for 10–15 minutes
- Monitor the progress of the gel-loading dye to get a relative idea of electrophoresis progress

4. Share your success!

Post stained gel photos and tag [@BioRadEducation](https://twitter.com/BioRadEducation) on Twitter



Ordering Information

Catalog #	Description
1660450EDU	Small Fast Blast DNA Electrophoresis Reagents Pack , makes 16–48 mini gels, includes agarose powder, Fast Blast DNA Stain, and TAE buffer
1660462EDU	Small UView DNA Electrophoresis Reagents Pack , makes 16–48 mini gels, includes agarose powder, UView 6x Loading Dye and Stain, and TAE buffer
1660451EDU	Small Ethidium Bromide DNA Electrophoresis Reagents Pack , makes 16–48 mini gels, includes agarose powder, ethidium bromide, and TAE buffer
1613015EDU	1% TAE Mini Ready Agarose Precast Gel , 7 x 10 cm, 1 x 8-well
1613057EDU	1% TAE Mini Ready Agarose Precast Gel , 7 x 10 cm, 2 x 8-well
1613017EDU	3% TAE Mini Ready Agarose Precast Gel , 7 x 10 cm, 1 x 8-well
1645050EDU	PowerPac Basic Power Supply
1664000EDU	Mini-Sub Cell GT Cell Tank and Lid

For a full selection of classroom kits, electrophoresis reagents, medium and large reagent packs, and equipment, visit explorer.bio-rad.com or call 1-800-4BIORAD.

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