E-Gel™ 50 bp DNA Ladder

invitrogen

PRODUCT INFORMATION SHEET Pub. No. MAN0001727 Rev. A.0

Print Options

Contents

Catalog No.	Amount
10488099	100 applications

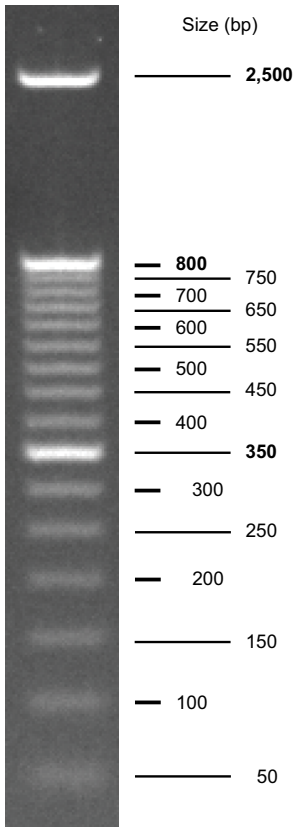
Kit contents

Storage

- Product is shipped at ambient temperature.
- Store at room temperature or at 4°C for up to 6 months, or at –20°C for long term storage.

Product description

- The Invitrogen™ E-Gel™ 50 bp DNA Ladder is designed for sizing and quantification of double stranded DNA on 2% E-Gel™ agarose gels.
- The E-Gel™ 50 bp DNA Ladder consists of 17 individual chromatography-purified DNA fragments ranging in size from 50 bp to 2,500 bp.
- Reference bands at 350 bp, 800 bp, and 2,500 bp are included for easy orientation.
- The ladder is supplied with 1X E-Gel™ Sample Loading Buffer for sample DNA.



Online resources

- Visit our product pages for additional information and protocols.
- Go online to view related DNA ladders and markers.
- For support, visit thermofisher.com/support.

Required materials

- E-Gel™ E-Gel™ EX or E-Gel™ Agarose Gel with SYBR™ Safe (See **Choosing the right DNA ladder for your E-Gel™ agarose gel**)
- TE Buffer (Cat. No. AM9858)
- Ultrapure™ DNase/RNase-Free Distillated Water (Cat. No. 10977023)

Important guidelines

- Do not heat the E-Gel™ 50 bp DNA Ladder before loading.
- Load the same volume of DNA sample and DNA ladder.
- For quantification, adjust the concentration of the sample to equalize it approximately with the amount of DNA in the nearest band of the ladder.
- Dilute sample DNA in TE buffer to avoid degradation of DNA sample.

Choosing the right DNA ladder for your E-Gel™ agarose gel

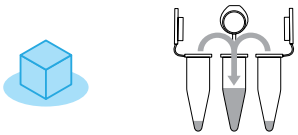
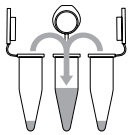
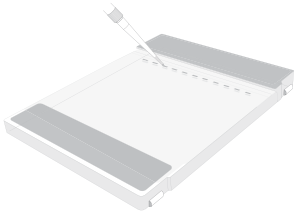
Troubleshooting

Limited product warranty and disclaimer details

ThermoFisher SCIENTIFIC

Prepare DNA ladders and samples for electrophoresis

This protocol provides a brief description of how to use the DNA ladder with E-Gel™ agarose gels. For detailed instructions on using specific types of E-Gel™ agarose gels, go to thermofisher.com or contact Technical Support.

<table>
<tr><th colspan="2">Step</th><th>Action</th></tr>
<tr><td>1</td><td>  </td><td>Prepare DNA ladder</td><td>a. Thaw, mix and briefly centrifuge DNA ladder before use.
b. Prepare DNA ladder.
▪ For 2% E-Gel™ EX Agarose Gels, mix 2 µL of DNA ladder with 18 µL of water.
▪ For 2% E-Gel™ Agarose Gels, mix and use the ladder without dilution.
▪ For 2% E-Gel™ 48 Agarose Gels, mix 2 µL of DNA ladder with 13 µL of water.</td></tr>
<tr><td>2</td><td>  </td><td>Prepare samples</td><td>a. Dilute your sample 2- to 10-fold with TE Buffer (Cat. No. AM9858), 1X E-Gel™ Sample Loading Buffer (Cat No. 10482055), or water.
b. Mix gently.</td></tr>
<tr><td>3</td><td>  </td><td>Load samples and DNA ladders</td><td>a. Load DNA ladders and DNA samples into the appropriate wells of the E-Gel™ agarose gel.
▪ Add 20 µL for E-Gel™ and E-Gel™ EX Agarose Gels.
▪ Add 15 µL for E-Gel™ 48 Agarose Gels.
b. Add water to any empty wells, so that all wells contain an equal volume of liquid.</td></tr>
<tr><td>4</td><td>  </td><td>Perform electrophoresis</td><td>a. Choose the appropriate E-Gel™ run protocol for your gel type based on the electrophoresis device being used.
<table>
<tr><th>Gel type</th><th>Program</th><th>Recommended run time</th></tr>
<tr><td colspan="3">E-Gel™ Power Snap Electrophoresis Device (Cat. No. G8100)</td></tr>
<tr><td>E-Gel™ EX Agarose Gel (2%)</td><td>E-Gel EX 4 1-2%</td><td>15 min (20 min max)</td></tr>
<tr><td>E-Gel™ Agarose Gel (2%)</td><td>E-Gel 0.8-2%</td><td>26 min (40 min max)</td></tr>
<tr><td colspan="3">E-Gel™ E-Base™ Device</td></tr>
<tr><td>E-Gel™ 48 Agarose Gel (2%)</td><td>EG</td><td>20 min</td></tr>
</table>
b. Run the program to start electrophoresis.</td></tr>
<tr><td>5</td><td>  </td><td>Visualize agarose gel</td><td>Visualize DNA ladder and samples.
▪ Use the E-Gel™ Power Snap Camera (Cat. No. G8200), E-Gel™ Imager (Cat. No. 466612), or other blue light imager to detect DNA bands stained with SYBR™ stains.
▪ UV transilluminator to detect DNA bands stained with ethidium bromide.</td></tr>
</table>

For support, visit thermofisher.com/support.