E-Gel™ 1 Kb Plus Express DNA Ladder

invitrogen

PRODUCT INFORMATION SHEET Pub. No. MAN0017358 Rev. A.0

Print Options

Contents

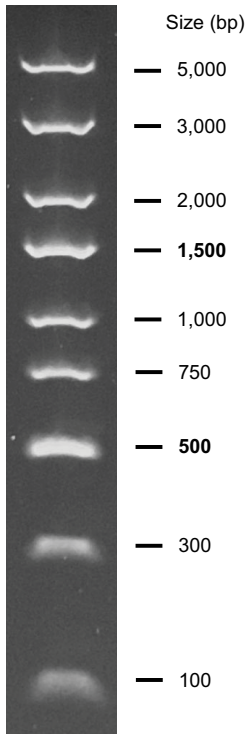
Catalog No.	Amount	Kit contents
10488091	100 applications	

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™ 1 Kb Plus Express DNA Ladder is designed for sizing and quantification of double stranded DNA on 0.8–1% E-Gel™ agarose gels.
- The E-Gel™ 1 Kb Plus Express DNA Ladder consists of 9 individual chromatography-purified DNA fragments ranging in size from 100 bp to 5,000 bp.
- Reference bands at 500 bp and 1,500 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™ CloneWell™ II or other E-Gel™ agarose gel (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™ 1 Kb Plus 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

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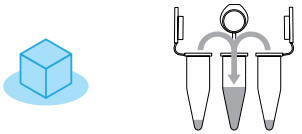
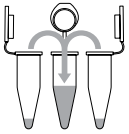
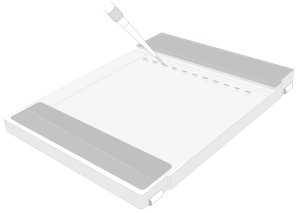
Prepare and load DNA ladders and samples

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.

Step		Action
1 	**Prepare DNA ladder**	a. Thaw, mix and briefly centrifuge DNA ladder before use. b. Prepare DNA ladder. ▪ For **E-Gel™ CloneWell™ II** Agarose Gels, mix and use **25 µL** of the ladder without dilution. ▪ For **E-Gel™ EX** Agarose Gels, mix 2 µL of DNA ladder with 18 µL of water. ▪ For **E-Gel™** Agarose Gels, mix and use the ladder without dilution. ▪ For **E-Gel™ 48** Agarose Gels, mix 2 µL of DNA ladder with 13 µL of water.
2 	**Prepare samples**	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.
3 	**Load samples and DNA ladders**	a. Load DNA ladders and DNA samples into the appropriate wells of the E-Gel™ agarose gel. ▪ Add 25 µL for **E-Gel™ CloneWell™ II** Agarose Gels. **Note**: All wells of E-Gel™ Clonewell™ II Agarose Gels must be pre-filled with 50 µL of water. ▪ 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. c. Proceed to **Perform electrophoresis of E-Gel™ agarose gel**.

Perform electrophoresis of E-Gel™ agarose gel

This protocol provides a brief description of how to perform electrophoresis 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>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™ Clonewell™ II Agarose Gel (0.8%)</td><td>CloneWell 0.8%</td><td>12 min (40 min max)</td></tr>
<tr><td>E-Gel™ EX Agarose Gel (1%, 2%)</td><td>E-Gel EX 1-2%</td><td>10 min (20 min max)</td></tr>
<tr><td>E-Gel™ Agarose Gel (0.8%, 1.2%, 2%)</td><td>E-Gel 0.8-2%</td><td>26 min (40 min max)</td></tr>
<tr><td>E-Gel™ Double Comb Agarose Gel (1%, 2%)</td><td>E-Gel Double Comb</td><td>13 min (20 min max)</td></tr>
<tr><td colspan="3">E-Gel™ E-Base™ Device</td></tr>
<tr><td>E-Gel™ 48 Agarose Gel (1%, 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>
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