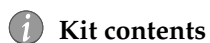




Contents

Catalog No.
12373031

Amount
100 applications



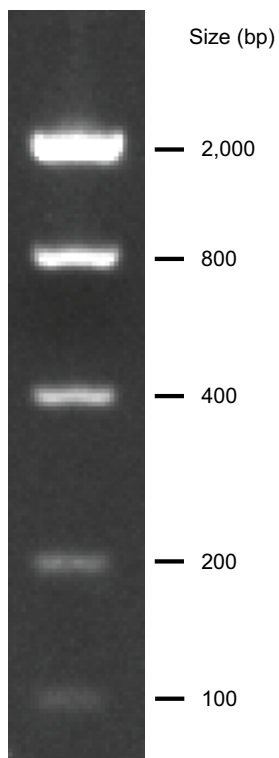
Storage

- 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™ Low Range Quantitative DNA Ladder is designed for sizing and quantification of double stranded DNA on 2% E-Gel™ agarose gels.
- The E-Gel™ Low Range Quantitative DNA Ladder consists of 5 individual chromatography-purified DNA fragments ranging in size from 100 bp to 2,000 bp.
- The ladder is supplied with 1X E-Gel™ Sample Loading Buffer for sample DNA.



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 Distilled Water (Cat. No. 10977023)



Important guidelines

- Do not heat the E-Gel™ Low Range Quantitative 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.

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

i Troubleshooting

i Limited product warranty and disclaimer details

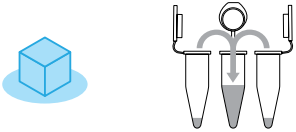
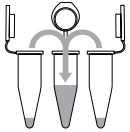
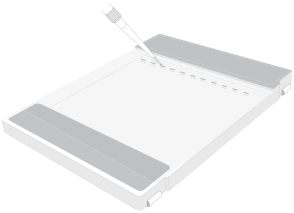
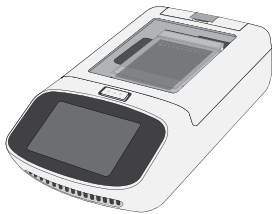



Online resources

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

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.

Step		Action																		
1		<p>Prepare DNA ladder</p> <p>a. Thaw, mix and briefly centrifuge DNA ladder before use.</p> <p>b. Prepare DNA ladder.</p> <ul style="list-style-type: none"> For E-Gel™ EX Agarose Gels, mix 5 µL of DNA ladder with 15 µL of water. For E-Gel™ Agarose Gels, mix 10 µL of DNA ladder with 10 µL of water. For E-Gel™ 48 Agarose Gels, mix 10 µL of DNA ladder with 5 µL of water. 																		
2		<p>Prepare samples</p> <p>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.</p> <p>b. Mix gently.</p>																		
3		<p>Load samples and DNA ladders</p> <p>a. Load DNA ladders and DNA samples into the appropriate wells of the E-Gel™ agarose gel.</p> <ul style="list-style-type: none"> Add 20 µL for E-Gel™ and E-Gel™ EX Agarose Gels. Add 15 µL for E-Gel™ 48 Agarose Gels. <p>b. Add water to any empty wells, so that all wells contain an equal volume of liquid.</p>																		
4		<p>Perform electrophoresis</p> <p>a. Choose the appropriate E-Gel™ run protocol for your gel type based on the electrophoresis device being used.</p> <table border="1" data-bbox="978 954 2039 1203"> <thead> <tr> <th>Gel type</th> <th>Program</th> <th>Recommended run time</th> </tr> </thead> <tbody> <tr> <td colspan="3">E-Gel™ Power Snap Electrophoresis Device (Cat. No. G8100)</td> </tr> <tr> <td>E-Gel™ EX Agarose Gel (1%, 2%)</td> <td>E-Gel EX 4 1-2%</td> <td>15 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 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> </tbody> </table> <p>b. Run the program to start electrophoresis.</p>	Gel type	Program	Recommended run time	E-Gel™ Power Snap Electrophoresis Device (Cat. No. G8100)			E-Gel™ EX Agarose Gel (1%, 2%)	E-Gel EX 4 1-2%	15 min (20 min max)	E-Gel™ Agarose Gel (0.8%, 1.2%, 2%)	E-Gel 0.8-2%	26 min (40 min max)	E-Gel™ E-Base™ Device			E-Gel™ 48 Agarose Gel (1%, 2%)	EG	20 min
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5		<p>Visualize agarose gel</p> <p>Visualize DNA ladder and samples.</p> <ul style="list-style-type: none"> 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. 																		