

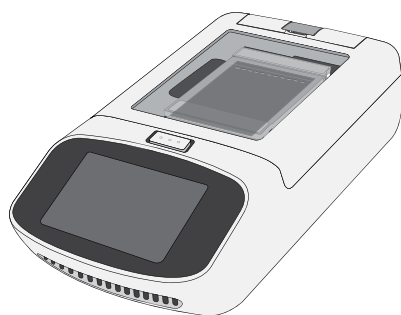
**Contents**

Catalog Number G8100

Components	Amount
E-Gel™ Power Snap Electrophoresis Device	1 each
E-Gel™ Go! Adapter for E-Gel™ Power Snap Electrophoresis Device	1 each
Power cord with adapter	1 each
Safe Imager™ Viewing Glasses	1 each

**Product description**

- The Invitrogen™ E-Gel™ Power Snap Electrophoresis Device is an easy-to-use automated device designed for use with pre-cast E-Gel™ agarose gels.
- Contains a power supply, blue light transilluminator and amber filter in one device.
- Compatible with precast E-Gel™, E-Gel™ EX and E-Gel™ Go! Agarose Gels.



E-Gel™ Power Snap Electrophoresis Device

E-Gel™ Power Snap Electrophoresis Device with
E-Gel™ Power Snap Camera**Online resources**

- Visit our [product pages](#) for protocols, safety, and additional product information.
- Go online to view related [E-Gel™ products](#).
- For support, visit [thermofisher.com/support](https://www.thermofisher.com/support).

**Required materials**

- DNA sample (See table of **Recommended DNA sample amounts**)
- E-Gel™ agarose gel (See [Gel selection guide](#))
- E-Gel™ DNA Ladder (See [Ladder selection guide](#)) or equivalent DNA ladder
- (Optional) 1X E-Gel™ Sample Loading Buffer (Cat. No. 10482055)
- (Optional) E-Gel™ Go! Adapter for E-Gel™ Power Snap Electrophoresis Device
- E-Gel™ Power Snap Camera (Cat. No. G8200), E-Gel™ Imager, or other imager
- USB memory device

**Important guidelines**

- Dilute samples containing high salt concentration buffers (certain restriction enzyme and PCR buffers) 2- to 20-fold before loading.
- For E-Gel™ gels with SYBR™ Safe DNA stain dilute samples 5–10 fold.
- For E-Gel™ EX gels dilute samples 10–30 fold.
- Keep all sample volumes uniform. Load any empty wells with 1X E-Gel™ Sample Loading Buffer or deionized water.

Instrument setup

1. Plug the adaptor plug for the E-Gel™ Power Snap Electrophoresis Device into an electrical outlet.
2. Turn on the master switch located at the back of the device.
3. Set the date and time on the camera upon first use. See the E-Gel™ Power Snap Electrophoresis System User Guide for instructions.

i Troubleshooting

For detailed troubleshooting instructions see the E-Gel™ Power Snap Electrophoresis System User Guide at [thermofisher.com](https://www.thermofisher.com) or contact Technical Support.

i Limited product warranty and licensing information

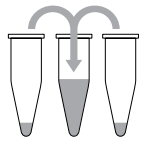
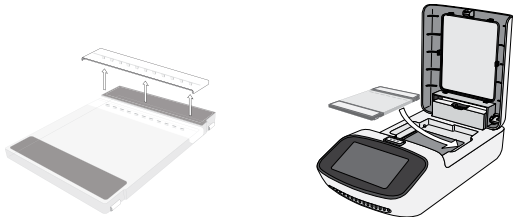

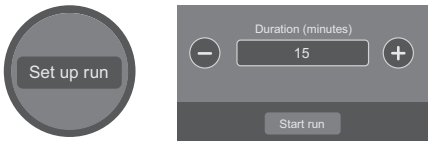
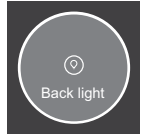

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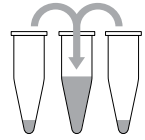
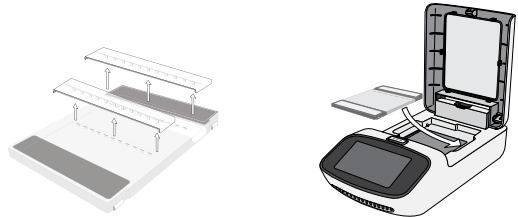


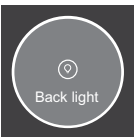

For Research Use Only. Not for use in diagnostic procedures.

E-Gel™ with SYBR™ Safe/E-Gel™ EX cassette DNA electrophoresis protocol

Step		Action
1-5 min	1 	Prepare samples Prepare DNA samples in deionized water OR 1X E-Gel™ Sample Loading Buffer (Cat. No 10482055). <ul style="list-style-type: none"> For optimal separation follow guidelines from table of Recommended DNA sample amounts. The total sample volume is 20 µL.
10-40 min	2 	Prepare gel a. Remove the gel from the package and gently remove the comb from the E-Gel™ cassette. Load gels within 15 minute after opening package. b. Insert gel cassette into the E-Gel™ Power Snap Electrophoresis Device, starting from the right edge.
	3 	Load samples a. Load 20 µL of prepared sample. Keep all sample volumes uniform. b. Load 20 µL of prepared E-Gel™ DNA ladder. c. Load 20 µL of 1X E-Gel™ Sample Loading Buffer or deionized water in all empty wells. Run gels within 1 minute after loading samples.
	4 	Run the gel a. Set up run by selecting a corresponding E-Gel™ protocol on E-Gel™ Power Snap Electrophoresis Device. Adjust protocol time if necessary. b. Run the gel protocol by pressing Start run.
5 	Check status <ul style="list-style-type: none"> Check gel status anytime by activating the Back light button. The run will automatically complete when protocol time is elapsed. 	
1-2 min	6 	Capture image a. Connect the E-Gel™ Power Snap Camera to the electrophoresis unit. b. Press Capture in home screen view. Adjust image if necessary and Export to a USB thumb-drive. Note: Allow the gel to cool down for 5-10 minutes before image capture to enhance gel sensitivity. c. Discard the used gel.

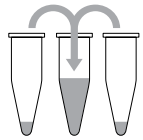

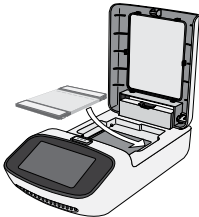

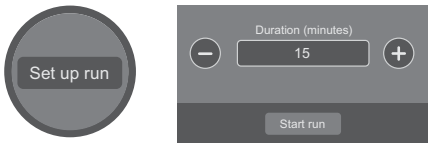

For support, visit thermofisher.com/support.

E-Gel™ Double Comb cassette DNA electrophoresis protocol

		Step	Action
1-5 min	1		<p>Prepare samples</p> <p>Prepare DNA samples in deionized water OR 1X E-Gel™ Sample Loading Buffer (Cat. No 10482055).</p> <ul style="list-style-type: none"> For optimal separation follow guidelines from table of Recommended DNA sample amounts. The total sample volume is 20 µL.
10-40 min	2		<p>Prepare gel</p> <p>a. Remove the gel from the package and gently remove the comb from the E-Gel™ cassette. Load gels within 15 minute after opening package.</p> <p>b. Insert gel cassette into the E-Gel™ Power Snap Electrophoresis Device, starting from the right edge.</p>
	3		<p>Load samples</p> <p>a. Load 20 µL of prepared sample. Keep all sample volumes uniform.</p> <p>b. Load 20 µL of prepared E-Gel™ DNA ladder.</p> <p>c. Load 20 µL of of 1X E-Gel™ Sample Loading Buffer or deionized water in all empty wells.</p> <p>Run gels within 1 minute after loading samples.</p>
	4		<p>Run the gel</p> <p>a. Set up run by selecting a corresponding E-Gel™ protocol on E-Gel™ Power Snap Electrophoresis Device. Adjust protocol time if necessary.</p> <ul style="list-style-type: none"> E-Gel™ with SYBR™ Safe 1%/2% gels: "E-Gel DC" program for 13 minutes E-Gel™ EX 1%/2% gels: "E-Gel EX 1-2%" program for 5 minutes. <p>b. Run the gel protocol by pressing Start run.</p>
	5		<p>Check status</p> <ul style="list-style-type: none"> Check gel status anytime by activating the Back light button. The run will automatically complete when protocol time is elapsed.
1-2 min	6		<p>Capture image</p> <p>a. Connect the E-Gel™ Power Snap Camera to the electrophoresis unit.</p> <p>b. Press Capture in home screen view. Adjust image if necessary and Export to a USB thumb-drive.</p> <p>Note: Allow the gel to cool down for 5-10 minutes before image capture to enhance gel sensitivity.</p> <p>c. Discard the used gel.</p>

For support, visit thermofisher.com/support.

E-Gel™ Go! cassette DNA electrophoresis protocol

Step		Action
1-5 min	1 	Prepare samples <p>Prepare DNA samples in deionized water OR 1X E-Gel™ Sample Loading Buffer (Cat. No 10482055).</p> <ul style="list-style-type: none"> For optimal separation follow guidelines from table of Recommended DNA sample amounts. The total sample volume is 10 µL.
10-40 min	2 	Prepare gel cassette <ol style="list-style-type: none"> Remove the gel from the package and gently remove the comb from the E-Gel™ Go! cassette. Insert gel cassette into the E-Gel™ Go! adaptor for the E-Gel™ Power Snap Electrophoresis Device. Load gels within 15 minute after opening package.
	3 	Load adaptor <p>Insert the adaptor with the E-Gel™ Go! cassette into the E-Gel™ Power Snap Electrophoresis Device, starting from the right edge.</p>
	4 	Load samples <ol style="list-style-type: none"> Load 10 µL of prepared sample. Keep all sample volumes uniform. Load 10 µL of prepared E-Gel™ DNA ladder. Load 10 µL of 1X E-Gel™ Sample Loading Buffer or deionized water in all empty wells. Run gels within 1 minute after loading samples.
	5 	Run the gel <ol style="list-style-type: none"> Set up run by selecting a corresponding E-Gel™ protocol on E-Gel™ Power Snap Electrophoresis Device. Adjust protocol time if necessary. Run the gel protocol by pressing Start run.
1-2 min	6 	Capture image <ol style="list-style-type: none"> Connect the E-Gel™ Power Snap Camera to the electrophoresis unit. Press Capture in home screen view. Adjust image if necessary and Export to a USB thumb-drive. Discard the used gel.

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Recommended DNA sample amounts

- Use the amount of DNA indicated in the following table according to the appropriate sample type. Overloading sample DNA will result in poor resolution.
- If unsure about how much DNA to use, test a range of concentrations to determine the optimal concentration for your particular sample.
- Load recommended total sample volume for each gel type.
- Keep all sample volumes uniform. If you do not have enough samples to fill all the wells of the gel, load an identical volume of deionized water into any empty wells.
- Prepare your samples by adding E-Gel™ 1X Sample Loading Buffer or deionized™ water to the required amount of DNA to bring the total required sample volume.

Gel type	%Agarose	Sample with single DNA band	Sample with multiple DNA bands (per band)	Total loading volume	
E-Gel™ EX	1%	0.5 ng–100 ng	50 ng	20 µL	
	2%, 4%	0.5 ng–100 ng	50 ng		
E-Gel™ EX Double Comb	1%	0.5 ng–100 ng	50 ng		
	2%	0.5 ng–100 ng	50 ng		
E-Gel™ with SYBR™ Safe DNA Stain	1%	3 ng–300 ng	500 ng		
	2%, 4%	3 ng–300 ng	500 ng		
E-Gel™ with SYBR™ Safe DNA Stain Double Comb	1%	3 ng–300 ng	500 ng		
	2%	3 ng–500 ng	500 ng		
E-Gel™ Go!	1%	0.5 ng–100 ng	200 ng		10 µL
	2%	0.5 ng–100 ng	500 ng		

Gel selection guide

Application	Product	Agarose %	Sample wells	In-gel stain	Amount	Cat. No.
Routine agarose workflow	E-Gel™ Agarose Gels with SYBR™ Safe DNA Stain, 1%	1%	11 wells	SYBR™ Safe	10 gels	A42100
					2 x 10 gels	A45202
					5 x 10 gels	A45203
	E-Gel™ Agarose Gels with SYBR™ Safe DNA Stain, 2%	2%	11 wells		10 gels	A42135
					2 x 10 gels	A45204
					5 x 10 gels	A45205
	E-Gel™ Agarose Gels with SYBR™ Safe DNA Stain, 4%	4%	11 wells		10 gels	A42136
					2 x 10 gels	A45206
	E-Gel™ Double Comb Agarose Gels with SYBR™ Safe DNA Stain, 1%	1%	22 wells		10 gels	A44884
					2 x 10 gels	A42347
E-Gel™ Double Comb Agarose Gels with SYBR™ Safe DNA Stain, 2%	2%	22 wells	10 gels	A42348		
			2 x 10 gels	A42390		
Fast and ultra-sensitive DNA sample analysis	E-Gel™ Agarose EX Gel, 1%	1%	11 wells	SYBR™ Gold II	10 gels	G401001
					2 x 10 gels	G402021
	E-Gel™ Agarose EX Gel, 2%	2%	11 wells		10 gels	G401002
					2 x 10 gels	G402022
	E-Gel™ Agarose EX Gel, 4%	4%	11 wells		10 gels	G401004
	E-Gel™ EX Double Comb Agarose Gels, 1%	1%	22 wells		10 gels	A42345
					2 x 10 gels	A44887
E-Gel™ EX Double Comb Agarose Gels, 2%	2%	22 wells	10 gels	A42346		
			2 x 10 gels	A44889		
Low sample throughput	E-Gel™ Go! Agarose Gels, 1%	1%	4 wells	SYBR™ Gold II	10 gels	G441001
					20 gels	G442001
	E-Gel™ Go! Agarose Gels, 2%	2%			10 gels	G441002
					20 gels	G442002
Cloning workflow	E-Gel™ CloneWell™ II Agarose Gels with SYBR Safe, 0.8%	0.8%	7 wells	SYBR™ Safe	10 gels	G661818
NGS size selection workflow	E-Gel™ SizeSelect™ II Agarose Gels, 2%	2%	7 wells	SYBR™ Gold II	10 gels	G661012
	E-Gel™ NGS™ 0.8% Agarose Gels	0.8%	11 wells	SYBR™ Safe	10 gels	A25798

For high throughput or other stain options visit thermofisher.com/egel.

For support, visit thermofisher.com/support.

Ladder selection guide

Product	Recommended DNA ladder				
	E-Gel™ 1 Kb Plus DNA Ladder (Cat. No. 10488090)	E-Gel™ 1 Kb Plus Express DNA Ladder (Cat. No. 10488091)	E-Gel™ 96 High Range DNA Marker (Cat. No. 12352019)	E-Gel™ Sizing DNA Ladder (Cat. No. 10488100)	E-Gel™ 50 bp DNA Ladder (Cat. No. 10488099)
E-Gel™ Agarose Gels with SYBR™ Safe DNA Stain, 1%	✓	—	—	—	—
E-Gel™ Agarose Gels with SYBR™ Safe DNA Stain, 2%	—	—	—	—	✓
E-Gel™ Double Comb Agarose Gels with SYBR™ Safe DNA Stain, 1%	—	✓	✓	—	—
E-Gel™ Double Comb Agarose Gels with SYBR™ Safe DNA Stain, 2%	—	✓	—	—	—
E-Gel™ Agarose EX Gel, 1%	—	✓	—	—	—
E-Gel™ Agarose EX Gel, 2%	✓	—	—	—	—
E-Gel™ EX Double Comb Agarose Gels, 1%	—	✓	✓	—	—
E-Gel™ EX Double Comb Agarose Gels, 2%	—	—	✓	—	✓
E-Gel™ Go! Agarose Gels, 1%	—	✓	—	—	—
E-Gel™ Go! Agarose Gels, 2%	—	—	—	—	✓
E-Gel™ CloneWell II	—	✓	—	—	—
E-Gel™ SizeSelect II	—	—	—	✓	—
E-Gel™ NGS	✓	✓	—	—	—

Product	Recommended low range DNA ladder		Recommended RNA ladder	
	E-Gel™ Low Range Quantitative DNA Ladder (Cat. No. 12373031)	E-Gel™ Ultra Low DNA Ladder (Cat. No. 10488096)	Millennium RNA Marker (Cat. No. AM7150)	Century-Plus RNA Ladder (Cat. No. AM7145)
E-Gel™ Agarose Gels with SYBR™ Safe DNA Stain, 4%	—	✓	—	—
E-Gel™ Double Comb Agarose Gels with SYBR™ Safe DNA Stain, 2%	✓	—	—	—
E-Gel™ Agarose EX Gel, 1%	—	—	✓	—
E-Gel™ Agarose EX Gel, 2%	—	✓	—	✓
E-Gel™ Agarose EX Gel, 4%	—	✓	—	✓
E-Gel™ Go! Agarose Gels, 2%	✓	—	—	—

For more ladder options visit thermofisher.com/egelladders.

For support, visit thermofisher.com/support.