

XCell SureLock™ Mini-Cell™

USER GUIDE

For leak-free electrophoresis of mini gels

Catalog Numbers EI0001 and EI0002

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Revision G



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For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

Revision history: MAN0000739 G (English)

Revision	Date	Description
G	17 December 2025	Updating guide content and formatting to include changes to the electrophoresis core.
F	5 October 2012	Base version used for revision.

The information in this guide is subject to change without notice.

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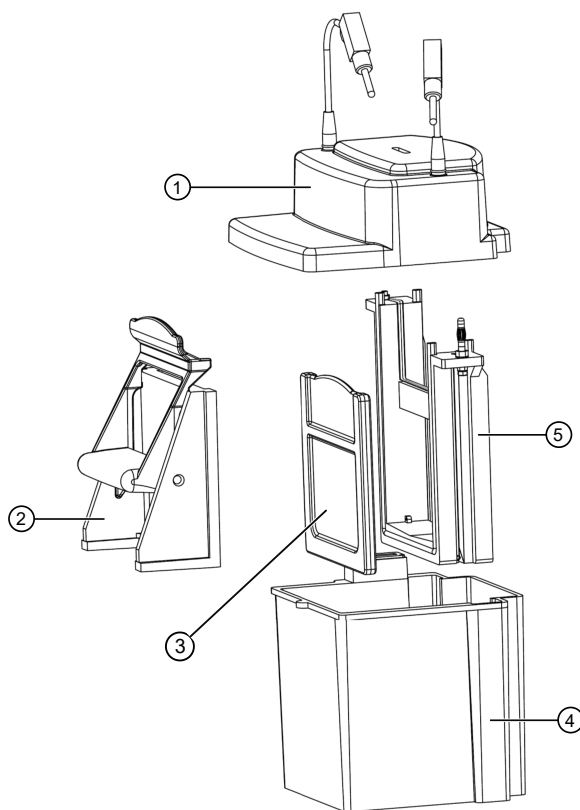


Product information

IMPORTANT! Before using this product, read and understand the information in the “Safety” appendix in this document.

Product description

The Invitrogen™ XCell SureLock™ Mini-Cell™ is a vertical mini-protein gel electrophoresis system compatible with all Invitrogen™ mini precast gels and SureCast™ handcast gels. The Mini-Cell is simple, sturdy, and easy to use. Rather than using clamps, the system incorporates the use of a gel tension wedge to make setup quick and convenient with a typical setup time of 30 seconds. Transfers can be performed using the optional XCell II Blot Module and the same Lower Buffer Chamber.



- ① Mini-Cell Lid
- ② Gel Tension Wedge
- ③ Buffer Dam
- ④ Lower Buffer Chamber
- ⑤ Buffer Core



Contents

Components	Cat. No.
XCell SureLock™ Mini-Cell™	EI0001
XCell SureLock™ Mini-Cell™ with XCell II Blot Module Kit	EI0002

Kit components

The components included with the different kits are listed below. See “Description of parts” on page 7 for more details.

Kit	Components
XCell SureLock™ Mini-Cell™	Gel Tension Wedge (1 each) Buffer Dam (1 each) Lower Buffer Chamber (1 each) Buffer Core™ (1 each) Mini-Cell™ Lid (1 each) Gel Knife (1 each)
XCell SureLock™ Mini-Cell™ with XCell II Blot Module Kit	EI0001 XCell II Blot Module

Product specifications

XCell SureLock™ Mini-Cell™ specifications

Dimensions	11 cm x 12 cm x 16 cm
Upper Buffer Chamber volume	200 mL
Lower Buffer Chamber volume	600 mL
Material	Polycarbonate
Cathode electrode	Stainless steel
Anode electrode	Platinum (0.01-inch diameter)
Electrical limits	500 VDC or 75 Watts
Temperature limit (buffer operating temperature)	70°C (Buffer temperature)
Altitude	2,000 m (6,560 ft)



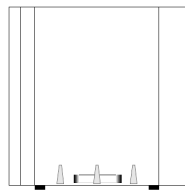
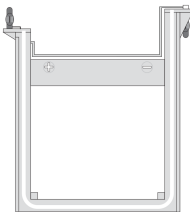
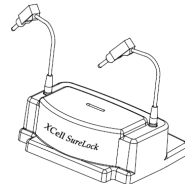
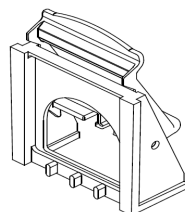
Temperature (environment)	15–30°C
Relative humidity	20–80% noncondensing
Pollution Degree	2

- The mini-cell is compatible with alcohol, but not compatible with chlorinated hydrocarbons (for example, chloroform), aromatic hydrocarbons (for example, toluene or benzene) or acetone.
- The mini-cell is for indoor use only and not intended to be used in a wet location.

Gel specifications

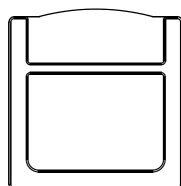
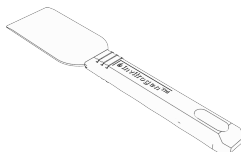
Gel cassette size	10 cm × 10 cm
Gel thickness	1.0 mm or 1.5 mm
Gel size	8 cm × 8 cm

Description of parts

Component	Description	
Lower Buffer Chamber	Capacity of approximately 900 mL of buffer and used as a heat sink during protein electrophoresis (Cat. No. EI0013)	
Buffer Core	Contains a stainless steel cathode bar, a platinum wire anode electrode, gold terminals, and silicone gaskets (Cat. No. EI9015)	
XCell™ Safety Lid with Cables	Lid to close the cell and power using the two attached cables (Cat. No. EI0010)	
Gel Tension Wedge	Push the lever on the Gel Tension Wedge (Cat. No. EI0011) forward into a locked position to generate an even horizontal force and seal the gel cassette/Buffer Core assembly firmly into position in the Lower Buffer Chamber	



(continued)

Component	Description	
Buffer Dam	Use the Buffer Dam (Cat. No. EI0012) when running one gel	
Gel Knife	For easy opening of Invitrogen™ pre-cast mini gels (Cat. No. EI9010)	



Assemble the XCell SureLock™ Mini-Cell™

Remove the gel cassette

1. Cut open the gel cassette pouch with scissors.
2. Drain away the gel packaging buffer.
3. Remove the gel cassette from the pouch and rinse with deionized water.

Note: Always handle the cassette by its edges only.

Load the gel cassette into the mini cell

1. Peel off the tape covering the slot on the back of the gel cassette.
2. Pull the comb out of the cassette in one fluid motion to expose the gel loading wells.
3. Use a pipette to gently wash the cassette wells with 1X running buffer. Invert the gel and shake to remove buffer. Repeat twice. Fill the sample wells with running buffer.

Note: Be sure to displace all air bubbles from the cassette wells as they will affect sample running.



4. Lower the Buffer Core into the Lower Buffer Chamber so the negative electrode fits into the opening in the gold plate on the Lower Buffer Chamber as shown in Figure 1.

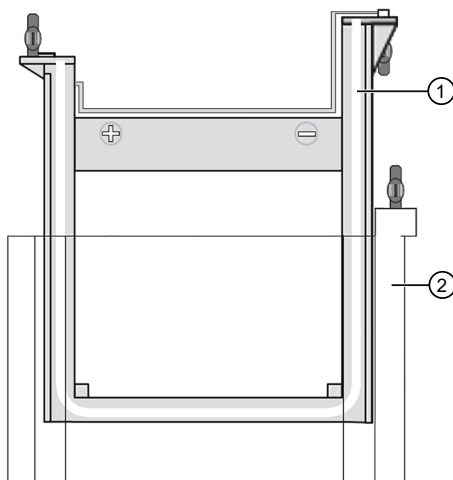
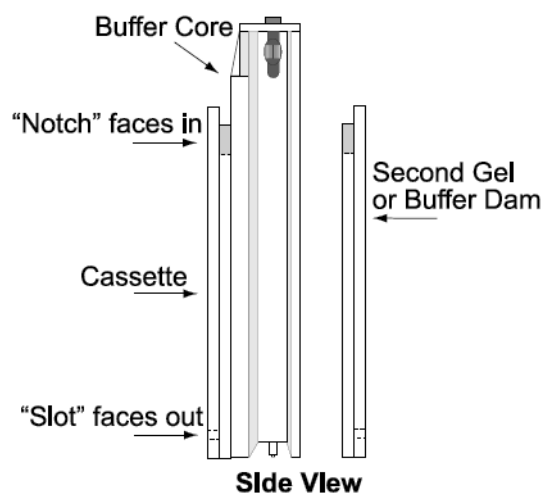


Figure 1 Front view of Lower Buffer Chamber and Buffer Core.

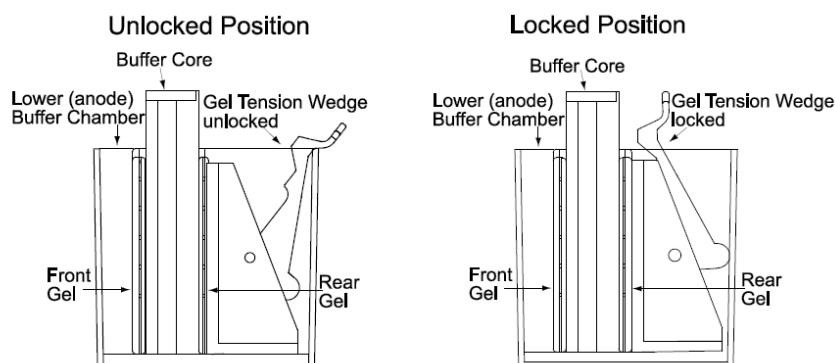
- ① Buffer Core
 - ② Lower Buffer Chamber
5. Insert the Gel Tension Wedge into the XCell SureLock™ Mini-Cell™ behind the buffer core. Ensure the Gel Tension Wedge is in its unlocked position, allowing the wedge to slip easily into the XCell SureLock™ Mini-Cell™ unit. The Gel Tension Wedge should rest on the bottom of the Lower Buffer Chamber.
 6. Insert the gel cassettes into the Buffer Core. Place one cassette behind the core and one cassette in front of the core. For each cassette, the shorter “well” side of the cassette faces in towards the Buffer Core. The slot on the back of the cassette must face out towards the Lower Buffer Chamber (see figure).



7. If you are running only one gel, replace the rear gel cassette with the Buffer Dam.



8. Pull forward on the Gel Tension Lever in a direction towards the front of the XCell SureLock™ Mini-Cell™ unit until the lever comes to a firm stop and the gels or gel/buffer dam appear snug against the buffer core (see figure).



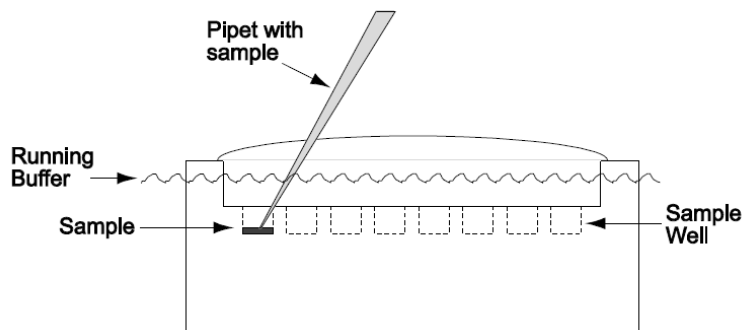
When fully assembled, the cassettes and Buffer Core are in place and the Gel Tension Wedge is locked into position. Review the information provided in “Troubleshooting” on page 14 to troubleshoot your experiments.

Gel electrophoresis protocol

Load samples

1. Prepare your samples using the appropriate sample buffer at the desired protein concentration.
2. Prepare the appropriate running buffer (see “Run conditions” on page 15).
3. The Upper Buffer Chamber (cathode) is the void formed between the 2 gel cassettes (or one cassette and the buffer dam) on each side of the Buffer Core.
4. Fill the Upper Buffer Chamber with 200 mL of the appropriate running buffer (see “Run conditions” on page 15). Use enough running buffer to completely cover the sample wells.
5. Ensure the Upper Buffer Chamber is not leaking. If the level of running buffer drops, the electrophoresis core and cassettes are not properly seated. Repeat steps 6 on page 10 and 7 on page 10.
6. Use the pipette equipped with a round sample-loading tip to underlay the samples into the gel wells (see figure). Lower the tip to the bottom of the sample well and slowly pipet sample into the well without contaminating another well with the sample.
If you have difficulty distinguishing the sample wells when loading the sample, see **“Troubleshooting” on page 14.**

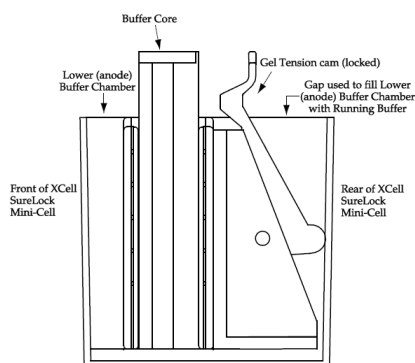
Note: To obtain the best results and promote a uniform running of the stacking front, load sample buffer in all the wells, whether or not they contain samples.



Run gel electrophoresis

1. Fill the Lower Buffer Chamber (anode) by pouring 600 mL of running buffer through the gap between the Gel Tension Wedge and the back of the Lower Buffer Chamber as shown below.

Note: If you are using Tricine and NuPAGE™ gels, we recommend you completely fill the Lower Buffer Chamber (600 mL) to help dissipate heat during the run. For other gel types, a filled Lower Buffer Chamber is recommended, but not required. The XCell SureLock™ Mini-Cell™ will function as long as the Lower Buffer Chamber is filled enough to cover the slot at the bottom of the cassette.



2. Align the lid on the Buffer Core. The lid can only be firmly seated if the (–) electrode is aligned over the banana plug on the right. If the lid is not properly seated, no power will go through the mini-cell.
3. With the power off, connect the electrode cords to the power supply (Red to the (+) jack; Black to the (–) jack).



CAUTION! Power must be off before connecting the mini-cell to the power supply.

4. Turn on the power. See “Run conditions” on page 15 for running conditions for different gel types.



Disassemble the mini-cell

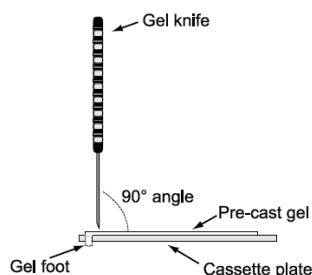
1. At the end of the run, turn off the power and disconnect the cables from the power supply.
2. Remove the lid and unlock the Gel Tension Lever. There is no need to remove the Gel Tension Wedge.
3. Remove the gel cassettes from the mini-cell. Handle gel cassettes by their edges only.
4. Lay the gel cassettes (well-side up) on a flat surface, such as the benchtop. Allow one edge to hang ~1 cm over the side of the benchtop.
5. Carefully insert the beveled edge of the Gel Knife into the narrow gap between the 2 plates of the cassette.

Note: To avoid cutting into the gel, do not forcefully push the knife between the cassette plates.

6. Push up and down gently on the knife's handle to separate the plates. A cracking sound due to breaking bond which means you have broken the bonds which hold the plates together. Repeat until you have broken the bonds on one side.
7. Rotate the cassette and repeat Steps 5 on page 13–6 on page 13 of this procedure until the two plates are completely separated.
8. Upon opening the cassette, the gel may adhere to either side. Remove and discard the plate without the gel, allowing the gel to remain on the other plate.
9. If blotting, proceed to the Western Transfer Protocol without removing the gel from the plate (refer to the XCell II Blot Module manual, IM9051 for more details).

Note: Trying to remove the gel at this point may result in the gel tearing. Proceed to Step 11 on page 14.

10. If staining, remove the gel from the cassette plate by one of the following methods:
 - If the gel remains on the shorter (notched) plate, use the sharp edge of the Gel Knife to remove the bottom foot of the gel. Hold the Gel Knife at a 90° angle to the gel and the slotted cassette plate. Push straight down on the knife to cut the gel. Repeat the motion across the gel to cut the entire foot. Hold the cassette plate and gel over a container with the gel facing downward. Use the knife to carefully loosen one lower corner of the gel and allow the gel to peel away from the plate.





- If the gel remains on the longer (slotted) plate, hold the cassette plate and gel over a container with the gel facing downward. Gently push the gel knife through the slot in the cassette until the gel peels away from the plate. Cut the foot off the gel after fixing and staining, but before drying.

11. Immediately fix, stain, or transfer the gel as desired.

IMPORTANT! Wash the mini-cell with a mild detergent and rinse with deionized water after each use.

Troubleshooting

Observation	Cause	Solution
Run is taking longer than normal	Buffers were too dilute.	Confirm the buffer is correct. Make a new solution as needed.
	Upper buffer chamber was leaking.	Ensure the Buffer Core is firmly seated, the gaskets are in place, and the gel tension lever is locked.
	Voltage was set too low.	Set the correct voltage.
Current reading on power supply is 0 (zero) or very low	Tape was left on the bottom of the cassette.	Remove tape from the bottom of the cassette.
	Connection to the power supply was not complete.	Check all connections with a voltmeter for conductance.
	Insufficient buffer level.	Make sure the upper buffer (cathode) is covering the wells of the gel. Ensure there is sufficient buffer in the Lower Buffer Chamber to cover the slot at the bottom of the gel.
Run is faster than normal with poor resolution	Buffers were too concentrated or incorrect.	Confirm the buffer is correct. Make a new solution as needed.
	Voltage, current, or wattage was set at a higher limit.	Decrease the power conditions to recommended running conditions (see Appendix A, "Additional information").
Cannot see the sample wells to load the sample	There was minimal contrast between the sample well and the rest of the gel.	Mark the cassette at the bottom of the wells with a marker pen prior to assembling the Upper Buffer Chamber. Illuminate the bench area with a light source placed directly behind the mini-cell.



Additional information

Run conditions

Recommended constant voltage run conditions for electrophoresis are provided in the following table for various types of gels.

Note: Run time may vary depending on gel percentage and the power supply used for electrophoresis.

Gel type	Voltage	Starting current	Ending current	Run time
Bolt™ 4–12% Bis-Tris Plus (MES)	200 V	250 mA	150 mA	20 minutes
Bolt™ 4–12% Bis-Tris Plus (MES) Quick Protocol	250 V	350 mA	230 mA	14 minutes
Bolt™ 4–12% Bis-Tris Plus (MOPS)	200 V	210 mA	100 mA	25 minutes
NuPAGE™ 4–12% Bis-Tris (MES)	200 V	250 mA	180 mA	24 minutes
NuPAGE™ 4–12% Bis-Tris (MOPS)	200 V	240 mA	145 mA	28 minutes
Novex™ 4–20% Tris-Glycine Plus (denatured)	225 V	180 mA	65 mA	32 minutes
Novex™ 4–20% Tris-Glycine Plus (native)	225 V	30 mA	10 mA	90 minutes
NuPAGE™ 3–8% Tris-Acetate (denatured)	150 V	100 mA	55 mA	48 minutes
NuPAGE™ 3–8% Tris-Acetate (native)	150 V	40 mA	10 mA	100 minutes
Novex™ 10–20% Tricine	125 V	170 mA	80 mA	56 minutes
NativePAGE™ 4–16%	150 V	30 mA	5 mA	80 minutes
Novex™ pH 3–10 IEF	Program	15 mA	10 mA	150 minutes
10% Zymogram (Gelatin)	125 V	40 mA	10 mA	90 minutes
10% TBE-Urea (DNA)	180 V	10 mA	10 mA	50 minutes

Related products

Many of the components of the XCell SureLock™ Mini-Cell™, as well as additional reagents that may be used for electrophoresis of proteins are available separately from Thermo Fisher Scientific. Ordering information is provided below. For details, visit www.thermofisher.com or call Technical Support.

Apparatus	Quantity	Cat. No.
XCell SureLock™ Mini-Cell™	1 kit	EI0001
XCell SureLock™ Mini-Cell™ and XCell II Blot Module	1 kit	EI0002
XCell II Blot Module	1 each	EI9051
PowerEase™ Touch 350W Power Supply	1 each	PS0350
Novex™ Power Supply Adapters	1 set	ZA10001
Replacement parts	Quantity	Cat. No.
Lower Buffer Chamber	1 each	EI0013
XCell Wedge	1 each	EI0011
Gel Knife	1 each	EI9010
Buffer Core with Cathode Bar	1 each	EI9015
XCell Lid	1 each	EI0010
Buffer Dam	1 each	EI0012
Buffer Core Replacement Wire	2 each	EI9022
Pipette tips for gel loading	Quantity	Cat. No.
Gel Loading Tips (Standard Round)	200/pk	LC1001
Flat Gel Loading Tips	200/pk	LC1002
Pre-mixed buffers	Quantity	Cat. No.
4X Bolt™ LDS Sample Buffer	10 mL	B0007
10X Bolt™ Sample Reducing Agent	250 µL	B0004
Bolt™ Antioxidant	15 mL	BT0005
20X Bolt™ MES SDS Running Buffer	500 mL	B0002
20X Bolt™ MOPS SDS Running Buffer	500 mL	B0001
Bolt™ Transfer Buffer (20X)	125 mL	BT0006
NuPAGE™ LDS Sample Buffer (4X)	10 mL	NP0007
NuPAGE™ Sample Reducing Agent (10X)	250 µL	NP0004



(continued)

Apparatus	Quantity	Cat. No.
NuPAGE™ Sample Reducing Agent (10X)	10 mL	NP0009
NuPAGE™ Antioxidant	15 mL	NP0005
NuPAGE™ MOPS SDS Running Buffer (20X)	500 mL	NP0001
NuPAGE™ MES SDS Running Buffer (20X)	500 mL	NP0002
NuPAGE™ Tris-Acetate SDS Running Buffer (20X)	500 mL	LA0041
NuPAGE™ Transfer Buffer (20X)	125 mL	NP0006
Novex™ Tris-Glycine SDS Running Buffer (10X)	500 mL	LC2675
Novex™ Tris-Glycine SDS Sample Buffer (2X)	20 mL	LC2676
Novex™ Tris-Glycine Native Running Buffer (10X)	500 mL	LC2672
Novex™ Tris-Glycine Native Sample Buffer (2X)	20 mL	LC2673
Novex™ Tris-Glycine Transfer Buffer (25X)	500 mL	LC3675
Novex™ Tricine SDS Running Buffer (10X)	500 mL	LC1675
Novex™ Tricine SDS Sample Buffer (2X)	20 mL	LC1676
Novex™ IEF Cathode Buffer pH 3–10 (10X)	125 mL	LC5310
Novex™ IEF Cathode Buffer pH 3–7 (10X)	125 mL	LC5370
Novex™ IEF Anode Buffer(50X)	100 mL	LC5300
Novex™ IEF Sample Buffer pH 3–10 (2X)	25 mL	LC5311
Novex™ IEF Sample Buffer pH 3–7 (2X)	25 mL	LC5371
Novex™ TBE Running Buffer (5X)	1 L	LC6675
Novex™ Hi-Density TBE Sample Buffer (5X)	10 mL	LC6678
Novex™ TBE-Urea Sample Buffer (2X)	10 mL	LC6876
Novex™ Zymogram Renaturing Buffer (10X)	500 mL	LC2670
Novex™ Zymogram Developing Buffer (10X)	500 mL	LC2671

Safety



WARNING! GENERAL SAFETY. Using this product in a manner not specified in the user documentation may result in personal injury or damage to the instrument or device. Ensure that anyone using this product has received instructions in general safety practices for laboratories and the safety information provided in this document.

- Before using an instrument or device, read and understand the safety information provided in the user documentation provided by the manufacturer of the instrument or device.
- Before handling chemicals, read and understand all applicable Safety Data Sheets (SDSs) and use appropriate personal protective equipment (gloves, gowns, eye protection, and so on). To obtain SDSs, visit [thermofisher.com/support](https://www.thermofisher.com/support).

Symbols on this instrument

Symbols may be found on the instrument to warn against potential hazards or convey important safety information. In this document, the hazard symbol is used along with one of the following user attention words.

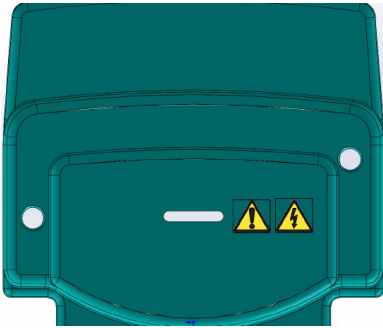
- **CAUTION!**—Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
- **WARNING!**—Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.
- **DANGER!**—Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

Standard safety symbols

Symbol and description	
	CAUTION! Risk of danger. Consult the manual for further safety information.
	CAUTION! Risk of electrical shock.

Symbole et description	
	MISE EN GARDE ! Risque de danger. Consulter le manuel pour d'autres renseignements de sécurité.
	MISE EN GARDE ! Risque de choc électrique.

Location of safety labels

Label and location

Figure 2 Top view of instrument with warning labels

Control and connection symbols

Symbols and descriptions	
	On (Power)
	Off (Power)
	Earth (ground) terminal
	Protective conductor terminal (main ground)
	Direct current
	Alternating current
	Both direct and alternating current

Conformity symbols

Conformity mark	Description
	INDICATES CONFORMITY WITH SAFETY REQUIREMENTS FOR CANADA AND U.S.A.
	INDICATES CONFORMITY WITH CHINA RoHS REQUIREMENTS.
	INDICATES CONFORMITY WITH AUSTRALIAN STANDARDS FOR ELECTRICAL SAFETY AND ELECTROMAGNETIC COMPATIBILITY.
	INDICATES CONFORMITY WITH THE WEEE DIRECTIVE 2012/19/EU.  CAUTION! To minimize negative environmental impact from disposal of electronic waste, do not dispose of electronic waste in unsorted municipal waste. Follow local municipal waste ordinances for proper disposal provision and contact customer service for information about responsible disposal options.

Instrument safety

General



CAUTION! Do not remove instrument protective covers. If you remove the protective instrument panels or disable interlock devices, you may be exposed to serious hazards including, but not limited to, severe electrical shock, laser exposure, crushing, or chemical exposure.

If covers are removed, do not use the instrument. Contact Technical Support.

Physical injury



CAUTION! Moving and Lifting Injury. The instrument is to be moved and positioned only by the personnel or vendor specified in the applicable site preparation guide. Improper lifting can cause painful and permanent back injury.

Things to consider before lifting or moving the instrument or accessories:

- Depending on the weight, moving or lifting may require two or more persons.
- If you decide to lift or move the instrument after it has been installed, do not attempt to do so without the assistance of others, the use of appropriate moving equipment, and proper lifting techniques.
- Ensure you have a secure, comfortable grip on the instrument or accessory.
- Make sure that the path from where the object is to where it is being moved is clear of obstructions.
- Do not lift an object and twist your torso at the same time. Keep your spine in a good neutral position while lifting with your legs.
- Participants should coordinate lift and move intentions with each other before lifting and carrying.
- For smaller packages, rather than lifting the object from the packing box, carefully tilt the box on its side and hold it stationary while someone else slides the contents out of the box.

Electrical safety



WARNING! Ensure appropriate electrical supply. For safe operation of the instrument:

- Plug the system into a properly grounded receptacle with adequate current capacity.
- Ensure the electrical supply is of suitable voltage.
- Never operate the instrument with the ground disconnected. Grounding continuity is required for safe operation of the instrument.



AVERTISSEMENT ! Veiller à utiliser une alimentation électrique appropriée. Pour garantir le fonctionnement de l'instrument en toute sécurité :

- Brancher le système sur une prise électrique correctement mise à la terre et de puissance adéquate.
- S'assurer que la tension électrique est convenable.
- Ne jamais utiliser l'instrument alors que le dispositif de mise à la terre est déconnecté. La continuité de la mise à la terre est impérative pour le fonctionnement de l'instrument en toute sécurité.

Cleaning and decontamination



CAUTION! Cleaning and Decontamination. Use only the cleaning and decontamination methods that are specified in the manufacturer user documentation. It is the responsibility of the operator (or other responsible person) to ensure that the following requirements are met:

- No decontamination or cleaning agents are used that can react with parts of the equipment or with material that is contained in the equipment. Use of such agents could cause a HAZARD condition. **Only use mild detergent to wash and deionized water to rinse the mini cell after each use.**
- The instrument is properly decontaminated a) if hazardous material is spilled onto or into the equipment, and/or b) before the instrument is serviced at your facility or is sent for repair, maintenance, trade-in, disposal, or termination of a loan. Request decontamination forms from customer service.
- Before using any cleaning or decontamination methods (except methods that are recommended by the manufacturer), confirm with the manufacturer that the proposed method will not damage the equipment.



MISE EN GARDE ! Nettoyage et décontamination. Utiliser uniquement les méthodes de nettoyage et de décontamination indiquées dans la documentation du fabricant destinée aux utilisateurs. L'opérateur (ou toute autre personne responsable) est tenu d'assurer le respect des exigences suivantes:

- Ne pas utiliser d'agents de nettoyage ou de décontamination susceptibles de réagir avec certaines parties de l'appareil ou avec les matières qu'il contient et de constituer, de ce fait, un DANGER.
- L'instrument doit être correctement décontaminé a) si des substances dangereuses sont renversées sur ou à l'intérieur de l'équipement, et/ou b) avant de le faire réviser sur site ou de l'envoyer à des fins de réparation, de maintenance, de revente, d'élimination ou à l'expiration d'une période de prêt (des informations sur les formes de décontamination peuvent être demandées auprès du Service clientèle).
- Avant d'utiliser une méthode de nettoyage ou de décontamination (autre que celles recommandées par le fabricant), les utilisateurs doivent vérifier auprès de celui-ci qu'elle ne risque pas d'endommager l'appareil.

Instrument component and accessory disposal

To minimize negative environmental impact from disposal of electronic waste, do not dispose of electronic waste in unsorted municipal waste. Follow local municipal waste ordinances for proper disposal provision and contact customer service for information about responsible disposal options.

Safety and electromagnetic compatibility (EMC) standards

The instrument design and manufacture complies with the following standards and requirements for safety and electromagnetic compatibility.

Safety standards

Reference	Description
EU Directive 2014/35/EU	European Union “Low Voltage Directive”
IEC 61010-1 EN 61010-1 UL 61010-1 CAN/CSA C22.2 No. 61010-1	<i>Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements</i>

Environmental design standards

Reference	Description
Directive 2012/19/EU	European Union “WEEE Directive” —Waste electrical and electronic equipment
Directive 2011/65/EU	European Union “RoHS Directive” —Restriction of hazardous substances in electrical and electronic equipment
SJ/T 11364-2014	“China RoHS” Standard — Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products For instrument specific certificates, visit our customer resource page at www.thermofisher.com/us/en/home/technical-resources/rohs-certificates.html .

Chemical safety



WARNING! GENERAL CHEMICAL HANDLING. To minimize hazards, ensure laboratory personnel read and practice the general safety guidelines for chemical usage, storage, and waste provided below. Consult the relevant SDS for specific precautions and instructions:

- Read and understand the Safety Data Sheets (SDSs) provided by the chemical manufacturer before you store, handle, or work with any chemicals or hazardous materials. To obtain SDSs, see the "Documentation and Support" section in this document.
- Minimize contact with chemicals. Wear appropriate personal protective equipment when handling chemicals (for example, safety glasses, gloves, or protective clothing).
- Minimize the inhalation of chemicals. Do not leave chemical containers open. Use only with sufficient ventilation (for example, fume hood).
- Check regularly for chemical leaks or spills. If a leak or spill occurs, follow the manufacturer cleanup procedures as recommended in the SDS.
- Handle chemical wastes in a fume hood.
- Ensure use of primary and secondary waste containers. (A primary waste container holds the immediate waste. A secondary container contains spills or leaks from the primary container. Both containers must be compatible with the waste material and meet federal, state, and local requirements for container storage.)
- After emptying a waste container, seal it with the cap provided.
- Characterize (by analysis if needed) the waste generated by the particular applications, reagents, and substrates used in your laboratory.
- Ensure that the waste is stored, transferred, transported, and disposed of according to all local, state/provincial, and/or national regulations.
- **IMPORTANT!** Radioactive or biohazardous materials may require special handling, and disposal limitations may apply.



AVERTISSEMENT ! PRÉCAUTIONS GÉNÉRALES EN CAS DE MANIPULATION DE PRODUITS CHIMIQUES. Pour minimiser les risques, veiller à ce que le personnel du laboratoire lise attentivement et mette en œuvre les consignes de sécurité générales relatives à l'utilisation et au stockage des produits chimiques et à la gestion des déchets qui en découlent, décrites ci-dessous. Consulter également la FDS appropriée pour connaître les précautions et instructions particulières à respecter :

- Lire et comprendre les fiches de données de sécurité (FDS) fournies par le fabricant avant de stocker, de manipuler ou d'utiliser les matériaux dangereux ou les produits chimiques. Pour obtenir les FDS, se reporter à la section « Documentation et support » du présent document.
- Limiter les contacts avec les produits chimiques. Porter des équipements de protection appropriés lors de la manipulation des produits chimiques (par exemple : lunettes de sûreté, gants ou vêtements de protection).
- Limiter l'inhalation des produits chimiques. Ne pas laisser les récipients de produits chimiques ouverts. Ils ne doivent être utilisés qu'avec une ventilation adéquate (par exemple, sorbonne).
- Vérifier régulièrement l'absence de fuite ou d'écoulement des produits chimiques. En cas de fuite ou d'écoulement d'un produit, respecter les directives de nettoyage du fabricant recommandées dans la FDS.
- Manipuler les déchets chimiques dans une sorbonne.

- Veiller à utiliser des récipients à déchets primaire et secondaire. (Le récipient primaire contient les déchets immédiats, le récipient secondaire contient les fuites et les écoulements du récipient primaire. Les deux récipients doivent être compatibles avec les matériaux mis au rebut et conformes aux exigences locales, nationales et communautaires en matière de confinement des récipients.)
- Une fois le récipient à déchets vidé, il doit être refermé hermétiquement avec le couvercle fourni.
- Caractériser (par une analyse si nécessaire) les déchets générés par les applications, les réactifs et les substrats particuliers utilisés dans le laboratoire.
- Vérifier que les déchets sont convenablement stockés, transférés, transportés et éliminés en respectant toutes les réglementations locales, nationales et/ou communautaires en vigueur.
- **IMPORTANT !** Les matériaux représentant un danger biologique ou radioactif exigent parfois une manipulation spéciale, et des limitations peuvent s'appliquer à leur élimination.



WARNING! HAZARDOUS WASTE (from instruments). Waste produced by the instrument is potentially hazardous. Follow the guidelines noted in the preceding General Chemical Handling warning.



WARNING! 4L Reagent and Waste Bottle Safety. Four-liter reagent and waste bottles can crack and leak. Each 4-liter bottle should be secured in a low-density polyethylene safety container with the cover fastened and the handles locked in the upright position.

Documentation and support

Customer and technical support

Visit [thermofisher.com/support](https://www.thermofisher.com/support) for the latest service and support information.

- Worldwide contact telephone numbers
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 - Software, patches, and updates
 - Training for many applications and instruments
- Order and web support
- Product documentation
 - User guides, manuals, and protocols
 - Certificates of Analysis
 - Safety Data Sheets (SDSs; also known as MSDSs)

Note: For SDSs for reagents and chemicals from other manufacturers, contact the manufacturer.

Limited product warranty

Life Technologies Corporation and its affiliates warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale at www.thermofisher.com/us/en/home/global/terms-and-conditions.html. If you have questions, contact Life Technologies at www.thermofisher.com/support.

