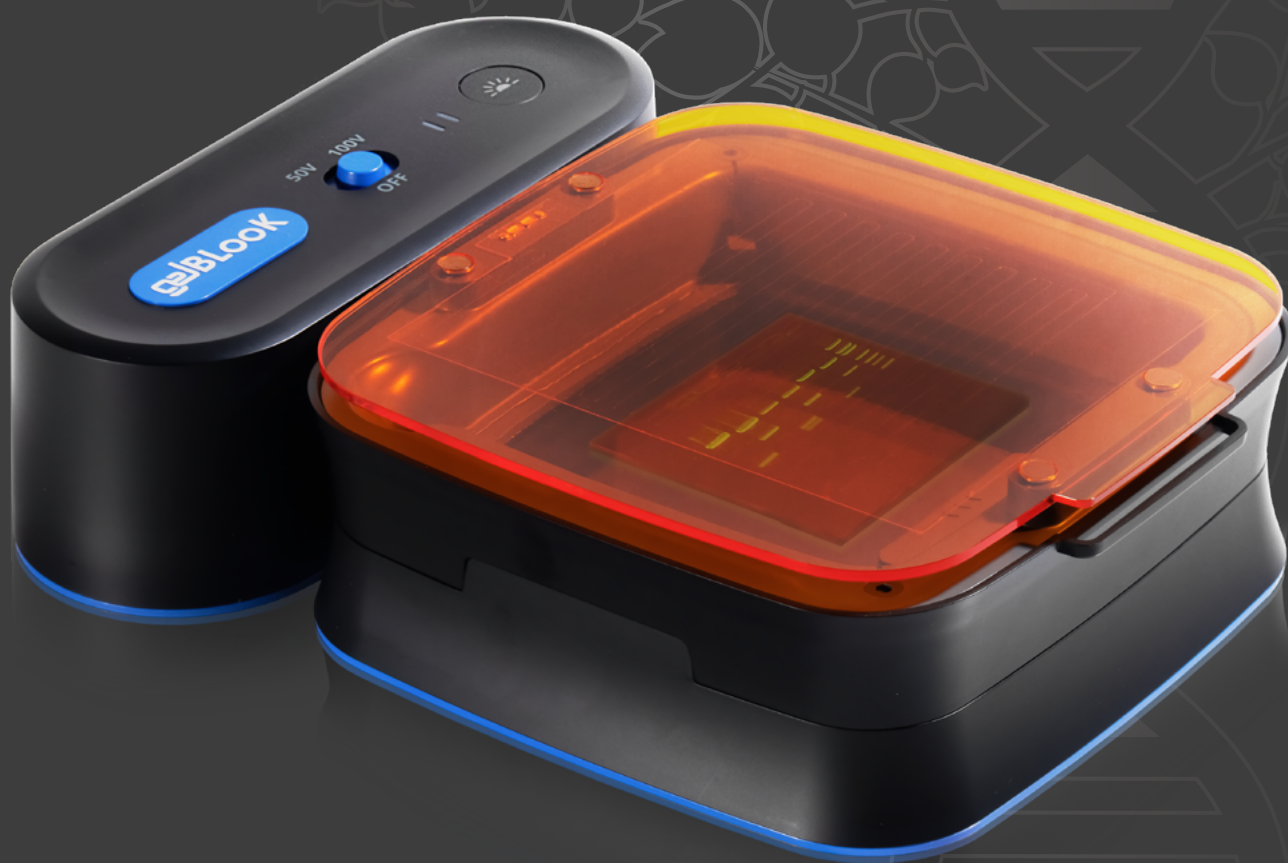


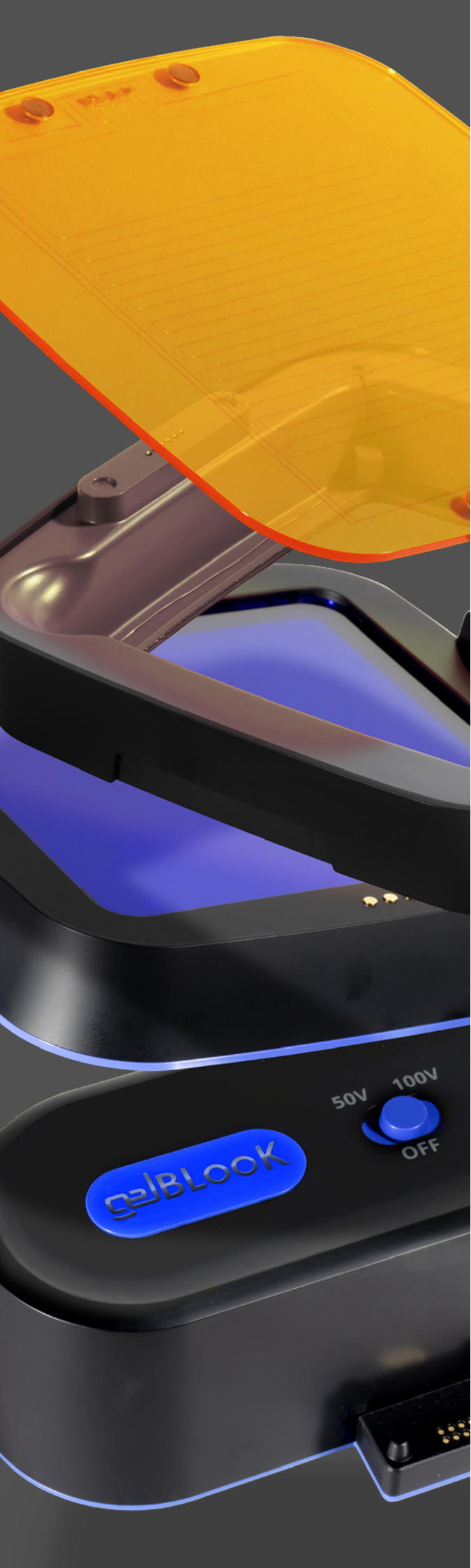
gelBlook

Electrophoresis System

User Guide



GeneDireX, Inc.



gelBLOOK

Electrophoresis System

Cat. No. BK008-000B

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Safety Warning

This product is intended for use by trained professionals only. Before the operation, please read this manual carefully. If you have any questions, please contact the manufacturer or authorized agent.

Product Description

gelBLoK is an instrument that combines the gel electrophoresis system with the blue LED transilluminator, designed for nucleic acid electrophoresis experiments. The special LED can emit blue light with a wavelength of 470nm, which can reduce damage to the observed nucleic acid samples and ensure the quality of experiments and the safety of experimenters and the environment. The electrophoresis tank provides a visible area of 115 mm x 95 mm, which can fit all of the general gel sizes. The bottom of the electrophoresis tank is made of tempered glass, which can meet the needs of gel cutting. The gelBLoK is suitable for commercially available safe fluorescent dyes with excitation wavelengths around 470nm. Meanwhile, the defogging design on the amber filter enables the real-time observation of the gel electrophoresis for users to quickly interpret experimental results. This instrument is recommended for basic scientific research or nucleic acid investigation in other molecular biology-related fields.

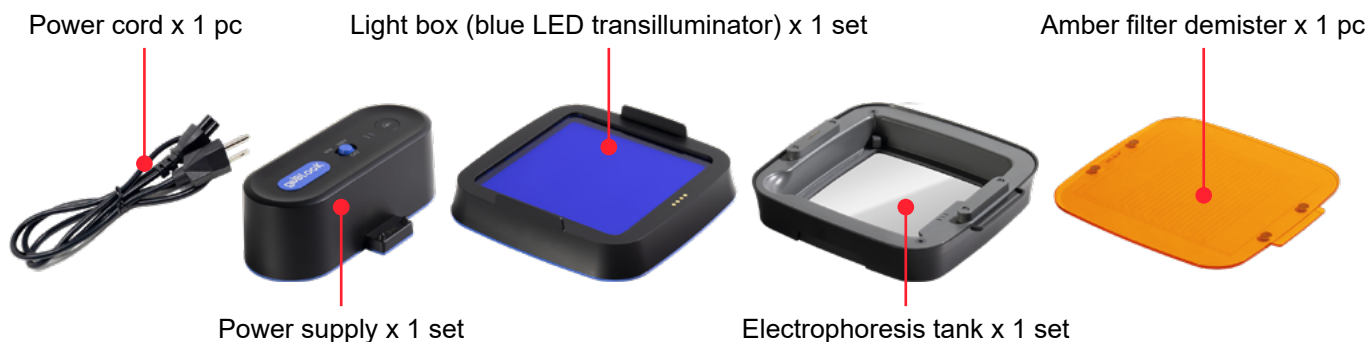
Product Features

- Combining gel electrophoresis with blue LED light transilluminator.
- Amber filter with defogging design for real-time nucleic acid migration observation.
- Fulfilled gel cutting purposes upon electrophoresis tank (bottom is made of tempered glass).
- Support two-stage voltage electrophoresis (50V and 100V).
- Integrated power supply for easily controlling the power of gel electrophoresis and light box.
- The visible area is 115mm (L) x 95 mm (W), which supports loading on common gel sizes.
- 50% buffer volume (160 mL) saved (Max volume: 320 mL).

Specifications

Entire Set	
Cat. No.	BK008-000B
Overall Dimensions (W x L x H)	193 x 256 x 65 mm (7.6 x 10.1 x 2.6 inch)
Weight (w/o power cord)	1,000 ± 5g
Operating Temperature	-30 to +70 °C (-22 to +158 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Power Supply	
Dimensions (W x L x H)	193 x 93 x 64 mm (7.6 x 3.7 x 2.5 inch)
Input Voltage	AC 100 – 240 V, 47 – 63 Hz
Output Voltage	DC 48 – 110 V
Electrophoresis Tank	
Amber Filter Dimensions (W x L)	168 x 175 mm (6.6 x 6.9 inch)
Tank Dimensions (W x L x H)	174 x 181 x 62 mm (6.9 x 7.1 x 2.4 inch)
Gel Viewing Dimensions (W x L)	115 x 95 mm (4.5 x 3.7 inch)
Buffer volume	320 mL Max.
Electrodes	Platinum wire
Blue LED Transilluminator	
Dimension (W x L x H)	174 x 174 x 37 mm (6.9 x 6.9 x 1.5 inch)
Emission maxima	470 nm
LED Light Source	Built-in blue light LED module
LED Life	> 30,000 hours

Contents



Assembly

Note: Please install the device on a stable and flat surface.

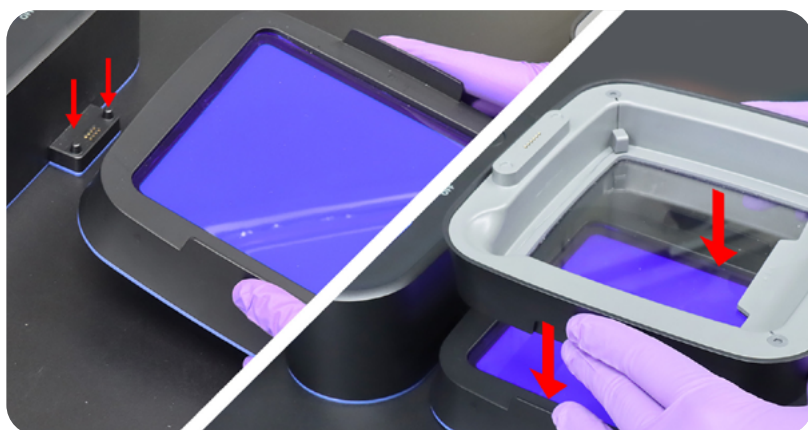


Operation



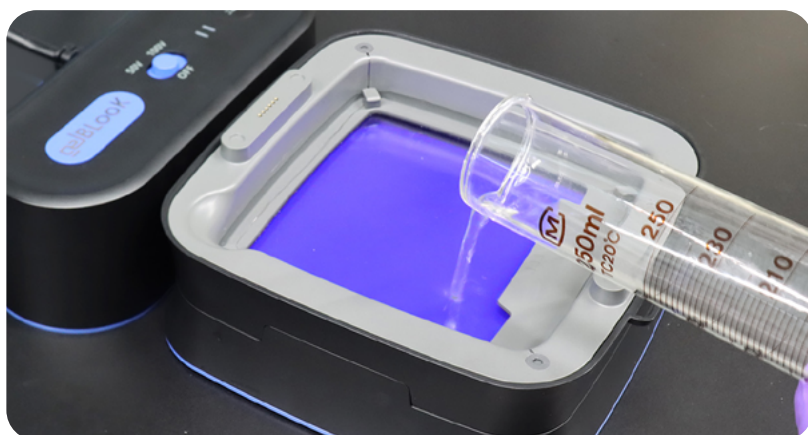
Step 1

Connect the power cord to the power supply and into a proper socket.



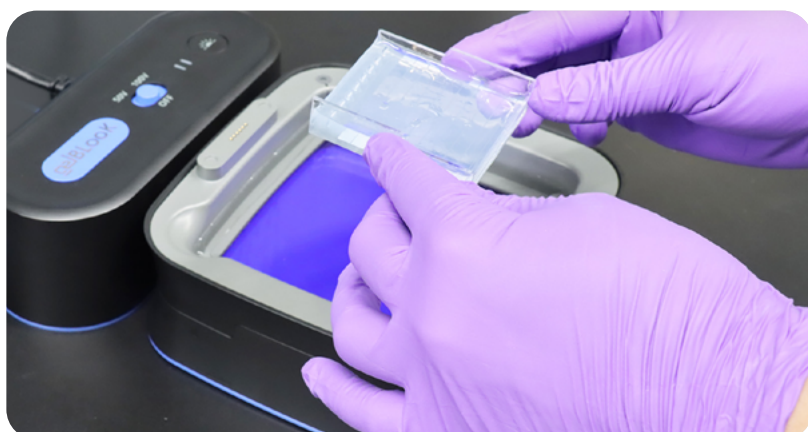
Step 2

Attach the electrophoresis tank with the light box onto the power supply.



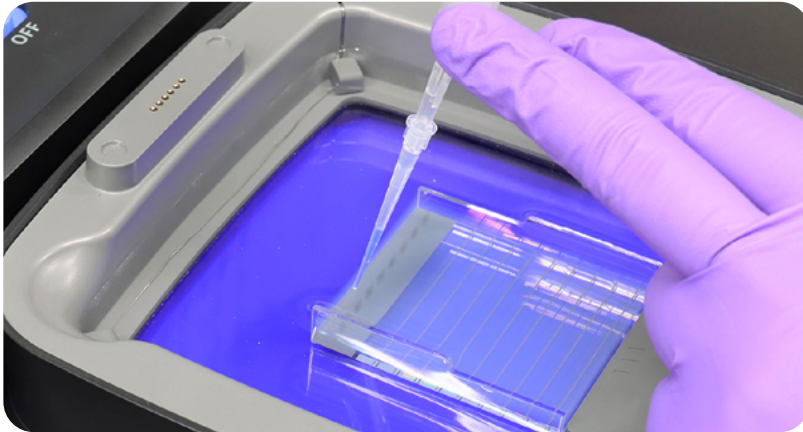
Step 3

Pour buffer into electrophoresis tank, usually, 200 mL should be sufficient to cover the gel.



Step 4

Put the prepared gel together with the gel tray into the electrophoresis tank filled with buffer.



Step 5

Gently load DNA samples into the wells of the gel.

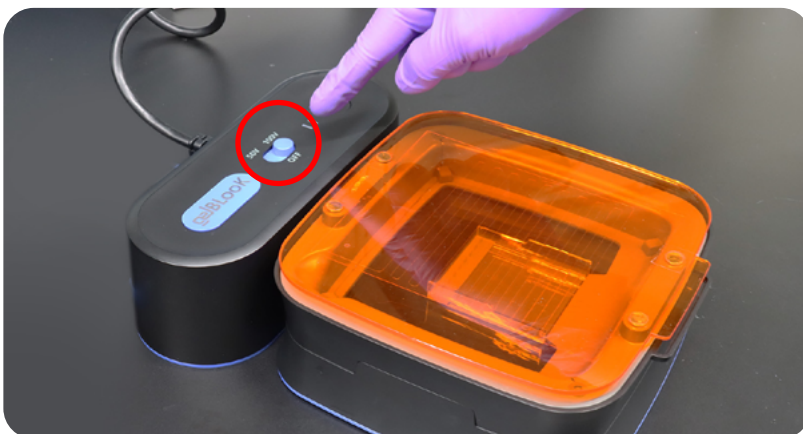
↑ Note:

For the real-time sample observation purpose, samples shall be well-mixed with fluorescent staining dye, which with excitation wavelengths around 470nm.



Step 6

Cover the amber filter on the electrophoresis tank.



Step 7

Switch on/off the voltage (50V or 100V) for electrophoresis.

↑ Note:

For safety purposes, the electrophoresis action will shut down automatically when amber filter is detached.

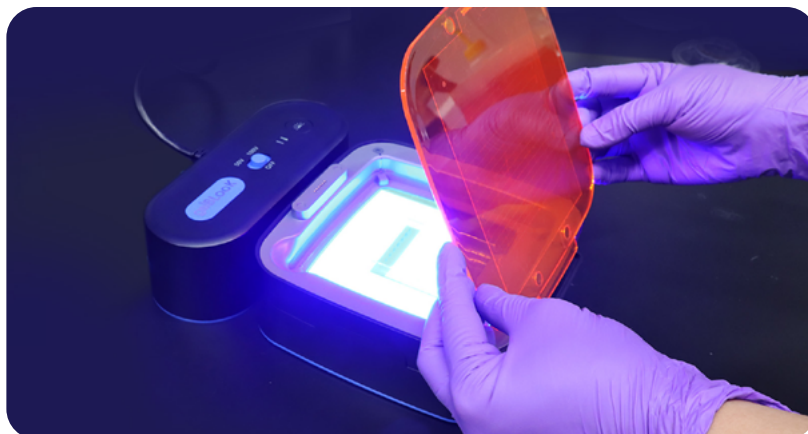


Step 8

Press the indicator lamp button for turning on/off real-time gel observation.

↑ Note:

- 1.To prevent fluorescent dye degradation, please avoid constant turning on the blue light during gel electrophoresis.
- 2.Please do use the amber filter while the light box is turned on.
- 3.Turning off the ambient light can have better gel observation results.
- 4.Apply with the darkroom can have better gel viewing experience.



Step 9

Stand the amber filter on the side of the electrophoresis tank and turn on the light box to view the gel or operate other actions, such as gel cutting.



Step 10

Please make sure the switches are all turned off and the power is disconnected from electricity after using.

Recommended products

Name	Cat. No.	Pack Size
Novel Juice	LD001-1000 / SL001-1000	1 mL
Novel Juice PLUS	SL007-1000	1 mL
OnePCR™	MB203-0100 / SM203-0100	100 Reactions (2.5 mL)
OnePCR™ HiFi	MB205-0100 / SM205-0100	100 Reactions (2.5 mL)
OnePCR™ HotStar	MB206-0100 / SM206-0100	100 Reactions (2.5 mL)
OnePCR™ Plus	MB207-0100 / SM207-0100	100 Reactions (2.5 mL)
amaR™ OnePCR	SM213-0250	250 Reactions (2.5 mL)
amaR™ OnePCR HiFi	SM215-0250	250 Reactions (2.5 mL)
amaR™ OnePCR HotStar	SM216-0250	250 Reactions (2.5 mL)
OneMARK 100	DM101-0100 / SD101-0100	100 Reactions (600 µL)
OneMARK B	DM110-0100 / SD110-0100	100 Reactions (600 µL)

Troubleshooting

Problem(s)	Caused	Solution(s)
No migration	Power is not connected.	<ol style="list-style-type: none"> 1. Check if there are bubbles generated on platinum ware to make sure if electricity is connected. 2. Check if the power cord is connected to the power supply, and switch is fully turned on. 3. Check if the amber filter is well-connected to the electrophoresis tank. 4. Check if each accessory is well-attached to each other.
Abnormal heating of the device while not using	Power is not disconnected after using	<ol style="list-style-type: none"> 1. Check if all switches are completely turned off. 2. Remove the plug from electrical socket.
Abnormal heating of buffer or gels	<ol style="list-style-type: none"> 1. Abnormal buffer concentration 2. Higher voltage 	<ol style="list-style-type: none"> 1. Check if the running buffer concentration is correct or fresh. 2. Reduce running voltage.
Low sensitivity	<ol style="list-style-type: none"> 1. Wavelength may not be right 2. Fluorescent dye degradation 	<ol style="list-style-type: none"> 1. Check the excitation and emission wavelengths of the fluorescence dye. 2. Check if the fluorescent-stained nucleic acids have been exposed to blue light for too long.
High background, suboptimal, or no image	<ol style="list-style-type: none"> 1. Low sample concentration 2. Fluorescent dye degradation 	<ol style="list-style-type: none"> 1. Check the concentration of sample 2. Check if the fluorescent-stained nucleic acids have been exposed to blue light for too long.
The device is not working, and the above problem has been eliminated	Device failure	Please contact your distributors or the manufacturer's information for repair.

Maintenance

Power Supply

1. Make sure the power supply is unplugged from the electrical outlet.
2. Clean the exterior of the power supply with a soft, dry cloth. Do not use water or any cleaning solution.
3. Inspect the power supply for any visible signs of damage, such as frayed cords or cracks in the casing.
If damage is found, do not attempt to repair the power supply yourself. Contact a qualified technician for repair or replacement.

4. Check the power supply's output voltage with a multimeter to ensure that it is within the specified range.
If the voltage is outside of the range, the power supply may need to be repaired or replaced.

Electrophoresis Tank

1. Disassemble from power supply.
2. Use water or neutral cleaner. Do not use aggressive cleaning detergents or solvents.
3. Cautiously when cleaning near the platinum electrodes.

Light Box (Blue LED Transilluminator)

1. Disassemble from power supply.
2. The surface should be damply wiped off with a soft cotton cloth.
3. Use water or neutral cleaner. Do not use aggressive cleaning detergents or solvents.

Replacement of Spare Parts and Serving

Only original spare parts are allowed. For any inquiry or request for repair service, contact local GeneDireX, Inc. offices and inform them of the model and serial number of your instrument.

Warranty

GeneDireX, Inc. warrants that gelBLoK is free from defects in material and workmanship for a period of one year from the date of purchase. If any defects arise within the warranty period, our company will, at its discretion, repair or replace the product at no charge to the customer. This warranty does not apply if the product has been damaged by accident, misuse, abuse, or unauthorized repair or modification. Normal wear and tear is also excluded from this warranty.

To make a claim under this warranty, please contact our customer service department and provide proof of purchase. The customer is responsible for shipping the product to GeneDireX, Inc. for repair or replacement.




This warranty is the sole and exclusive remedy for any claims related to this product. GeneDireX, Inc. makes no other warranties, express or implied, and shall not be liable for any incidental or consequential damages arising from the use or inability to use this product.

Safety Information

1. Do not touch the power cord or outlet with wet hands or use the device in damp areas or while standing on a wet floor.
2. Do not place fingers or any other objects into the electrophoresis tank while running the gel.
3. Please keep gelBLoK in a low humidity environment, away from water, intense light, corrosive gases, strong magnetic fields, heaters, or other heat sources.
4. gelBLoK should be powered using the supplied power cord. Insert the other end of the power cord into a properly grounded power outlet and ensure that the correct plug adapter is used.
5. Do not dismantle device modules while they are energized, this may cause damage.
6. Before cleaning the device or after use, make sure to turn it off and disconnect the power.
7. Do use the provided amber filter with the gelBLoK device to protect your eyes while viewing the gel.
8. The amber filter is not a safety screen for UV emissions and will not protect your eyes when viewing gels on a UV transilluminator.
9. Do not attempt to open or repair the gelBLoK. Please contact your distributors or the manufacturer for service.
10. Explanation of Symbols and warnings:



gelBLoK complies with the European Community Safety requirements. A CE Marking is a European marking of conformity that indicates a product complies with the essential requirements of the applicable European laws or directives with respect to safety, health, and environment and consumer protection.

	<p>Caution Caution risk of danger. Consult the User Guide for further safety information. Do not dispose of this product in unsorted municipal waste.</p>
	<p>Caution To minimize negative environmental impact from disposal of electronic waste, do not dispose of electronic waste in unsorted municipal waste. Please follow local municipal waste ordinances for proper disposal provision and contact customer service for information about responsible disposal options.</p>
	<p>Caution The gelBLooK is classified as a Class 2 LED product, which is indicated by the symbol to the left, radiation when open, do not stare into the beam.</p>

Manufacture Information

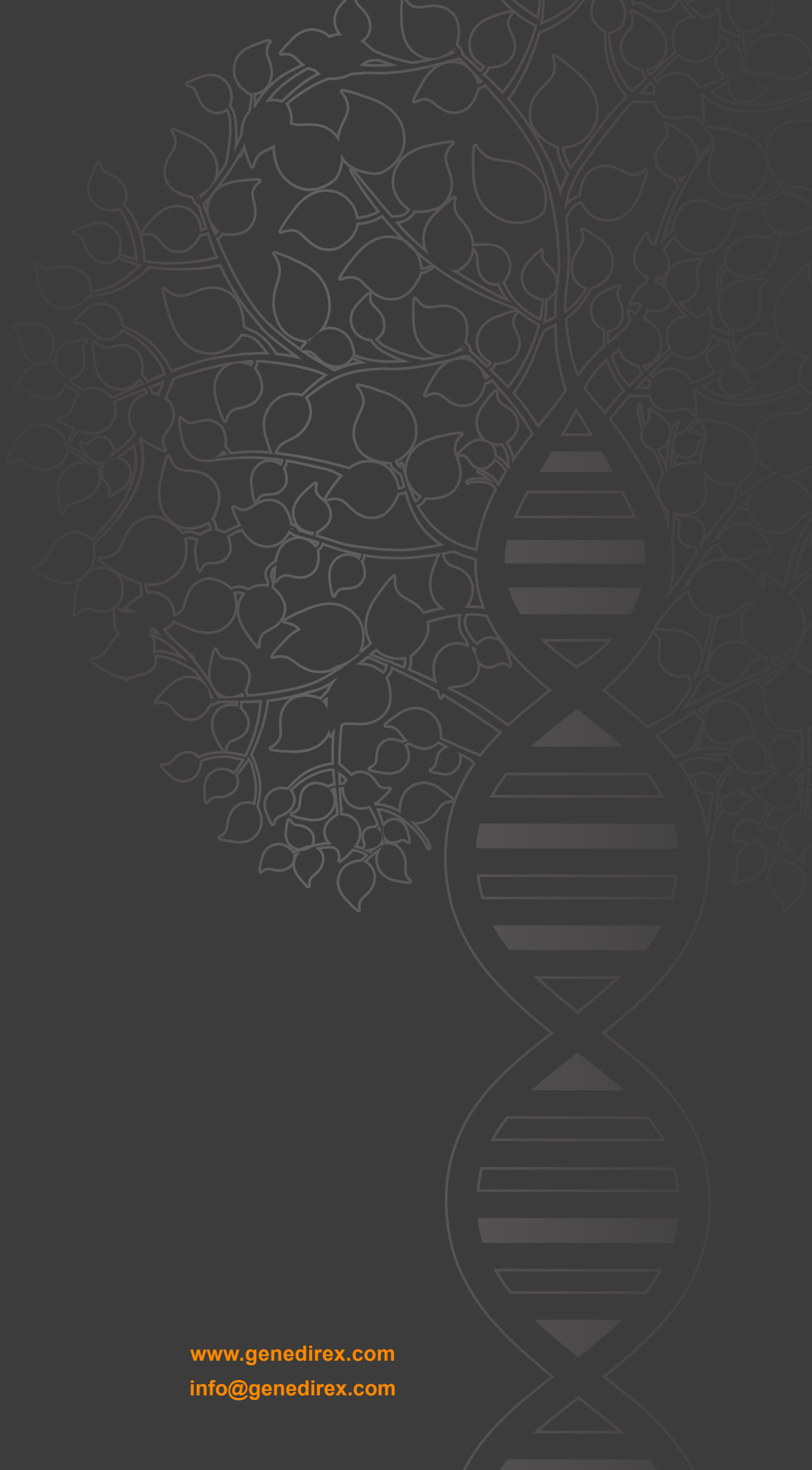
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