

## A look into our complete product collection.



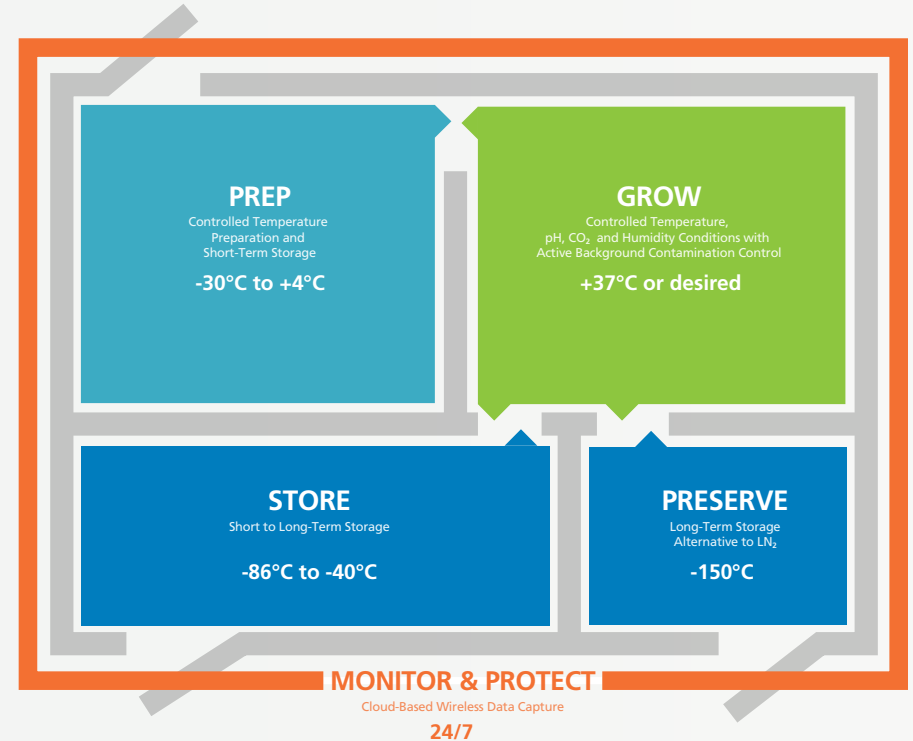
### PRODUCT GROUPS:

-150°C Freezers | -86°C Freezers | -40°C Freezers | -30°C Freezers | Refrigerators | Refrigerator & Freezer Combo Units |  
CO<sub>2</sub> Incubators | Multigas Incubators | Drosophila/Plant Growth Chamber | Cell Processing Work Station |  
Heated & Refrigerated Incubators | Lab Monitoring System |

# The Cell Culture Equation

Assuring dependable performance from seed cultures to long-term preservation.

PHC Corporation of North America has established a complementary suite of laboratory equipment products that offer the convenience of a single source supply.



## Laboratory Refrigerators and Biomedical Freezers

Storage of RPMI, DMEM, antifungal, FBS protein, EDTA, L-glutamate, trypsin.

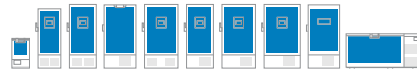
Laboratory refrigerators and biomedical freezers offer accurate and stable storage of media, reagents, enzymes and other components required for preparation and set-up of the cell culture process.



## Cell Culture Incubators

PHCbi brand Cell-IQ™ cell culture incubators create precise *in vitro* environments essential to cell growth. Incubators are available in traditional CO<sub>2</sub> configurations for standard processes.

Controlled CO<sub>2</sub> for pH management, controlled O<sub>2</sub> for maintaining neo-hypoxic conditions, stable temperature ~37°C, elevated humidity to eliminate media desiccation, active and passive decontamination protection.



## Ultra-Low Temperature Freezers

Long-term storage and sample security.

Ultra-low temperature freezers are required for storage of the finished product at temperatures as low as -86°C.



## Cryogenic Freezer

Long-term storage of most life forms and sample security.

The PHCbi brand cryogenic freezer offers cost-effective and safe alternatives to liquid nitrogen vapor or liquid storage systems for extended preservation without the constant need for refilling.



## Monitoring and Data Acquisition

Real-time monitoring and notification. Protection for valuable products and laboratory equipment investment.

LabAlert is an independent wireless monitoring solution for environmental conditions in refrigerators and freezers. Our secure, cloud-based solution offers customizable monitoring for refrigerators and freezers with no software installation required.

# -86°C and Cryogenic Freezers

Tested to meet the toughest quality standards, our ultra-low temperature freezers offer superior performance and reliability. The cooling and insulation systems in ultra-low temperature freezers maintain uniform conditions throughout the freezer's interior, even in response to frequent door openings. Find the right freezer for your needs.



Models MDF-DU702VXC-PA and MDF-DC700VXC-PA



Model MDF-DU702VH-PA



Model MDF-U5586SC-PA



Model MDF-C8V1-PA



Model MDF-C2156VANC-PA

## TwinGuard® Series

### -86°C Ultra-Low Temperature Freezers

MDF-DU702VXC-PA | 25.7 cu.ft. (729 L)  
 MDF-DC700VXC-PA | 25.3 cu.ft. (715 L)  
 MDF-DU502VXC-PA | 18.6 cu.ft. (528 L)  
 MDF-DU302VX-PA | 12.7 cu.ft. (360 L)

Two independent compressor systems offer double security for your samples.

*5-year parts and labor warranty*

## VIP® Series

### VIP -86°C Ultra-Low Temperature Freezers

MDF-U76VA-PA | 25.7 cu.ft. (728 L)  
 MDF-U76VC-PA | 25.7 cu.ft. (728 L)

### VIP ECO Natural Refrigerant Freezer

MDF-DU901VHA-PA | 29.8 cu.ft. (845 L) 115V\* **NEW**  
 MDF-DU702VH-PA | 25.7 cu.ft. (729 L) 220V\* \*\*  
 MDF-DU702VHA-PA | 25.7 cu.ft. (729 L) 115V\*  
 MDF-DU502VH-PA | 18.6 cu.ft. (528 L) 220V\* \*\*  
 MDF-DU502VHA-PA | 18.6 cu.ft. (528 L) 115V\*

Better reliability in your freezer with optimal performance and maximum energy savings.

\*ENERGY STAR® Certified  
 \*\* Temperature Range -40°C to -86°C  
*5-year parts and labor warranty*

## PRO Series

### -86°C Ultra-Low Temperature Freezer

MDF-U5586SC-PA | 17.1 cu.ft. (483 L)

High performance with optimum value.

*5-year parts and labor warranty*

## Chest Freezer

### -80°C Ultra-Low Temperature Freezer

MDF-C8V1-PA | 3.0 cu.ft. (84 L)

Energy efficiency and high performance cooling with space saving design.

*5-year parts and labor warranty*

## Cryogenic Freezer

### -150°C Ultra-Low Temperature Freezer

MDF-C2156VANC-PA | 8.2 cu.ft. (231 L)

Reliable mechanical cryogenic preservation with maximum storage capacity.

*2-year parts and labor warranty and 5-year compressor warranty*

# High Performance Biomedical Refrigerators and Freezers

This selection of high performance freezer and refrigeration systems offers outstanding performance and reliability, even in higher ambient temperatures and in response to frequent door openings. The cooling system also maintains uniform temperatures throughout the equipment's interior, which is especially important for GMP applications and vaccine storage.



Model TSU-4RW-N6



Model MDF-MU339HL-PA



Model MPR-N450FH-PA



Model MPR-722-PA



Model MPR-S300H-PA

## Undercounter Refrigerator & Freezer

### 2°C to 8°C Refrigerator

TSU-4RW-N6 | 4.0 cu.ft. (113.3 L)\*  
PR-L2466W-PA | 1.62 cu.ft. (45.9 L)\*

### -15°C to -20°C Freezer

SF-L6111W-PA | 5.5 cu.ft. (156 L)\*

These high performance undercounters are engineered for the demanding standards in clinical, life science, pharmaceutical, biotechnology, and industrial laboratories.

\*ENERGY STAR Certified

## Laboratory Freezers

### -30°C Freezers

MDF-U731M-PA | 24.4 cu.ft. (690 L)\*  
MDF-U731-PA | 22.0 cu.ft. (623 L)\*

### -30°C ECO Natural Refrigerant Freezers

MDF-MU539HL-PA | 17.8 cu.ft. (504 L) **NEW**  
MDF-MU339HL-PA | 13.0 cu.ft. (369 L) **NEW**

### -40°C ECO Natural Refrigerant Freezers

MDF-MU549DHL-PA | 16.9 cu.ft. (479 L) **NEW**

Ideal for storage of vaccines, specimens and other biologics. Available with optional storage bins. Automatic and manual defrost models available.

\*ENERGY STAR Certified

## Combo Refrigerators/Freezers

### 2°C to 14°C Refrigerators -30°C Freezers

MPR-715F-PA | 14.7 cu.ft. Ref & 6.2 cu.ft. Frzr (415 L Ref & 176 L Frzr)  
MPR-N450FH-PA | 11.5 cu.ft. Ref & 4.8 cu.ft. Frzr (326 L Ref & 136 L Frzr)  
MPR-N450FSH-PA<sup>1</sup> | 11.5 cu.ft. Ref & 4.8 cu.ft. Frzr (326 L Ref & 136 L Frzr)  
MPR-215F-PA | 6.2 cu.ft. Ref & 1.4 cu.ft. Frzr (176 L Ref & 39 L Frzr)

The biomedical refrigerator with freezer combines high performance refrigeration and monitoring systems with an energy efficient design. Each temperature zone is engineered with separate refrigeration systems for demanding applications and to meet GMP guidelines.

<sup>1</sup>Solid door model

## Swinging Door Refrigerators

### 2°C to 14°C Refrigerators

MPR-1412-PA | 48.2 cu.ft. (1364 L)\*  
MPR-1412R-PA<sup>2</sup> | 48.0 cu.ft. (1359 L)\*  
MPR-722-PA | 24.2 cu.ft. (684 L)\*  
MPR-722R-PA<sup>2</sup> | 23.7 cu.ft. (671 L)\*

Ideal temperature environment for clinical research, pharmaceutical, and industrial use. Adjustable shelves and wide range setpoint for varying laboratory applications, including chromatography and pharmaceutical storage. Available with optional sliding drawers.

\*ENERGY STAR Certified

<sup>2</sup>Pullout drawers

## Sliding Door Refrigerators

### 2°C to 14°C Refrigerators

MPR-1014-PA | 36.5 cu.ft. (1033 L)\*  
MPR-1014R-PA<sup>3</sup> | 36.3 cu.ft. (1029 L)\*  
MPR-514-PA | 17.3 cu.ft. (489 L)\*  
MPR-514R-PA<sup>3</sup> | 17.2 cu.ft. (486 L)\*  
MPR-S300H-PA<sup>4</sup> | 12.2 cu.ft. (345 L)

The slim design and optional sliding drawers or baskets give pharmaceutical refrigerators an ergonomic advantage, while complying with strict storage temperatures and easy product access.

\*ENERGY STAR Certified

<sup>3</sup>Pullout wire baskets

<sup>4</sup>Optional pullout drawers

# CO<sub>2</sub> and Multigas Incubators

These incubators use innovative technology to meet a wide range of applications and budget requirements for CO<sub>2</sub> and controlled oxygen cell culture protocols.



Model MCO-170AICUVDL-PA

## Cell-IQ™ CO<sub>2</sub> Incubator with High Heat Sterilization

### CO<sub>2</sub> Incubator

MCO-170AICUVDL-PA | 5.8 cu.ft. (165 L)

Cell-IQ CO<sub>2</sub> incubator with high heat sterilization provides precise and accurate cell culture conditions with a unique dual heat sterilization system. InCu-saFe®, copper enriched stainless-steel alloy and SafeCell™ UV continuously mitigate contamination throughout the incubator chamber and at the humidification source. Touchscreen provides user friendly control of parameters with gloved hands.



Model MCO-170AICUVL-PA

## Cell-IQ CO<sub>2</sub> Incubators with Vaporized H<sub>2</sub>O<sub>2</sub> Decontamination

### CO<sub>2</sub> Incubators

MCO-170AICUVHL-PA | 5.8 cu.ft. (165 L)

*H<sub>2</sub>O<sub>2</sub> standard*

MCO-230AICUVL-PA | 8.1 cu.ft. (230 L)  
MCO-170AICUVL-PA | 5.8 cu.ft. (165 L)

*Optional: H<sub>2</sub>O<sub>2</sub> decontamination available for both models*

Cell-IQ CO<sub>2</sub> incubators with H<sub>2</sub>O<sub>2</sub> decontamination provides the accuracy and precision of the MCO Cell-IQ line with the industries fastest decontamination cycle. Available in 165 and 230 liters.



Model MCO-170MP-PA

## Cell-IQ Multigas Incubators

### Multigas Incubators

MCO-170MP-PA | 5.7 cu.ft. (161 L)  
MCO-5M-PA | 1.7 cu.ft. (49 L)

*Optional: UV background decontamination available for both models. H<sub>2</sub>O<sub>2</sub> decontamination available for MCO-170M-PA model*

Cell-IQ Multigas incubators are a complete cell culture incubator for highly regulated applications like stem cell research, regenerative medicine, and *in vitro* fertilization.



Model MCO-170ACL-PA

## CytoGrow Optimal Incubators

### CO<sub>2</sub> Incubators

MCO-170ACL-PA | 5.8 cu.ft. (165 L) **NEW**  
MCO-5ACL-PA | 1.7 cu.ft. (49 L)

*Optional: UV background decontamination*

CytoGrow Optimal CO<sub>2</sub> incubators are ideal for cell culture and clinical based research applications with an optimum value.



Model MCO-80ICL-PA

## CytoGrow ReachIn Incubator

### CO<sub>2</sub> Incubator

MCO-80ICL-PA | 30.1 cu.ft. (851 L)

*Optional: UV background decontamination*

CytoGrow ReachIn CO<sub>2</sub> incubators are engineered for accurate and precise cell culture conditions. Engineered with passive and active mitigation systems, the CytoGrow ReachIn incubator supports a greater capacity for large-scale cell cultures. Available with optional roller bottle apparatus ramp and reinforced shaker shelves.

# General Purpose Undercounter Laboratory Freezers



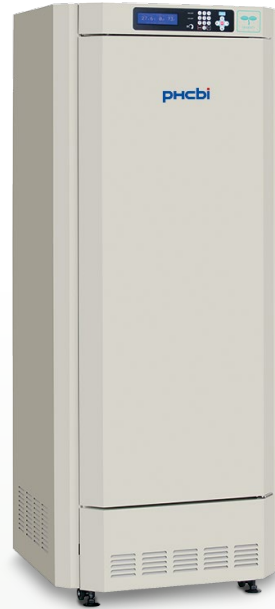
Model PF-L5011WSEC-PA

## -25°C to -15°C Freezers

PF-L5011W-PA | 5.0 cu.ft. (142 L)  
PF-L5011WSEC-PA<sup>5</sup> | 5.0 cu.ft. (142 L)

<sup>5</sup>Includes external hasp to accommodate padlock (not included).

Our general purpose laboratory freezers are used for storage of life science research materials.



Model MLR-352H-PA

# Drosophila/Plant Growth Chamber

Model: MLR-352H-PA | 10.4 cu.ft. (294 L)

The humidified drosophila/plant growth chamber functions within a temperature range of 5°C to 50°C, with programmable lighting, and humidity control for diurnal protocols in plant and insect experiments.

# CPWS Cell Processing Work Station

MHE-PF4025CW2-PA

The CPWS offers a cost-effective alternative to high capital equipment and maintenance expenses associated with clean rooms. The CPWS provides Class 100 air quality with barrier isolation required for regenerative stem cell therapies and other cell therapies.



Model MHE-PF4025CW2-PA



Model MIR-554-PA

# Heated and Refrigerated Microbiological Incubators

MIR-554-PA | 14.3 cu.ft. (406 L) -10°C to 60°C HEAT AND COOL  
MIR-254-PA | 8.4 cu.ft. (238 L) -10°C to 60°C HEAT AND COOL  
MIR-154-PA | 4.34 cu.ft. (123 L) -10°C to 60°C HEAT AND COOL

MIR-H263-PA | 5.4 cu.ft. (153 L) +5°C to 80°C HEAT  
MIR-H163-PA | 3.3 cu.ft. (93 L) +5°C to 80°C HEAT

MIR series incubators are designed for general laboratory applications requiring fixed setpoint or cycling temperature control. A selection of five cabinet sizes offers programmed operation and integrated alarms for a wide temperature range.



# LabAlert®

## Real-Time Monitoring & Notification System

### What is LabAlert?

LabAlert is a complete, end-to-end wireless, monitoring solution for all your laboratory equipment.



### What can be tracked?

ULT FREEZERS	LAB FREEZERS	LAB REFRIGERATORS	INCUBATORS	GMP CLEAN ROOM	LN <sub>2</sub> STORAGE
<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Door Status</li> <li>• 0-5V DC</li> <li>• 4-20 mA</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Door Status</li> <li>• 0-5V DC</li> <li>• 4-20 mA</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Door Status</li> <li>• 0-5V DC</li> <li>• 4-20 mA</li> </ul>	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> Concentration</li> <li>• Temperature</li> <li>• Humidity</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Humidity</li> <li>• Pressure</li> <li>• Water level</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> </ul>

### Laboratory Equipment Parameters

Product	Temperature	CO <sub>2</sub>	O <sub>2</sub>	Humidity	Door Status	Liquid Level	Pressure	RPM	Flow
Cryogenic Freezers	●	—	—	—	●	—	—	—	—
ULT Freezers	●	—	—	—	●	—	—	—	—
Lab Freezers	●	—	—	—	●	—	—	—	—
Lab Refrigerators	●	—	—	—	●	—	—	—	—
Incubators	●	●	●	●	●	●	—	—	—
LN <sub>2</sub> Storage	●	—	●	—	●	●	—	—	—
Environment Chambers	●	—	—	●	●	●	—	—	—
Clean Rooms	●	—	—	●	●	—	●	—	—
Environment Rooms	●	—	—	●	●	—	●	—	—
Ovens	●	—	—	—	●	—	—	—	—
Centrifuges	●	—	—	—	●	—	—	●	—
Facility Ambient	●	—	●	●	●	●	—	—	—
BioSafety Cabinets	●	—	—	—	—	—	●	—	●
Water Baths	●	—	—	—	—	●	—	—	●

\*Other parameters available. Contact PHC Corporation of North America for information.



PHC Corporation of North America  
1300 Michael Drive, Suite A, Wood Dale, IL 60191  
Toll Free USA (800) 858-8442, Fax (630) 238-0074  
[www.phchd.com/us/biomedical](http://www.phchd.com/us/biomedical)

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Specifications are subject to change without notice.  
For latest specification information contact PHC Corporation of North America at [info@us.phchd.com](mailto:info@us.phchd.com).