



Your Partner for Every Stage

Sustainability and innovation matter in the laboratory. PHCbi brand laboratory products are designed to empower the achievement of life science industry goals, making them an ideal partner at each stage of your research.

PHCbi Brand Equipment as Your Partner for Energy Efficiency and Improved Security

Industry-Leading ULT Storage

PHCbi brand VIP® ECO SMART ULT freezers offer the lowest daily kWh rates in their class: 5.4 kWh.¹ PHCbi brand freezers can deliver this efficiency without compromising cooling performance thanks to pioneering compressor technology developed over 50 years of engineering innovation.



Efficient - uses 30% less energy than other leading ENERGY STAR® Certified freezers²



SMART - proprietary algorithms run compressors at a slower speed under steady-state conditions for superior uniformity



Secure - controlled freezer access uses facial recognition, optional NFC, or PIN for improved security and monitoring of stored materials



VIP ECO SMART

MDF-DU703VH-PA | 76637-154
MDF-DU703VHA-PA | 76637-152

PHCbi Brand Equipment as Your Partner for Safety and Lower Operating Costs



Liquid Nitrogen Cryogenic Storage

Traditional cryogenic storage can be affected by natural off gassing which can result in a $\geq 3\%$ loss of liquid nitrogen (LN_2). It also presents several challenges that can increase risks, costs, and slow down workflow.



Safety concerns – the handling of LN_2 tanks is cumbersome, dangerous, and time consuming



Cross contamination – liquid phase storage can result in cross contamination of stored materials



LN_2 production costs – lab budgets can be impacted by increased LN_2 costs



Protocol development – only select employees manage tank movement, impacting facility traffic flow and staffing

Air Phase Cryogenic Storage

The PHCbi brand innovation of air phase cryogenic storage overcomes the reliance on LN_2 . This innovative chest freezer uses a high performance, hybrid cascade refrigeration system to create a more efficient storage medium known as “air phase” and achieve cryogenic temperatures of $-150^\circ C$. This alternative to liquid nitrogen-based systems helps you meet sustainability goals and manage fiscal objectives.



Reproducible temperature uniformity at any location within the chamber



VIP® Plus vacuum insulation protects against high ambient temperatures while sub-lids minimize cold air loss during lid openings



Reduces handling safety concerns, operational protocols, cross contamination potential, and industry reliance on LN_2



Lowers total cost of ownership



Cryogenic Freezer
MDF-C2156VANC-PA | 10046-900

PHCbi Brand Equipment as Your Partner for Reproducibility and Reduced Consumable Costs



Ultraviolet (UV) Light



Traditional incubators rely upon HEPA filters for decontamination. Smaller viruses can easily pass through these barriers as HEPA filtration only traps particulates of 0.3 microns or larger. HEPA filter reliance increases consumable budgets and their disposal increases landfill waste.

Innovative PHCbi brand incubators use UV light to kill contaminants which can help reduce your lab's environmental footprint and consumable budget.



No need for HEPA filters, that if not replaced regularly, can introduce a variety of contaminants to cultures



Long-lasting UV bulbs that kill contaminants and can last up to 5,000 hours, greatly reducing consumable costs



Decontamination process lasts just under 3 hours, allowing more time for your researchers to find their next great breakthrough.

Germicidal Interiors



Traditional incubators rely on corrosion-prone copper interiors as a further contamination barrier. To prevent disturbance of the oxidized layer and contaminating of culturing cell lines, careful cleaning is often required that can lengthen downtime and add steps to laboratory maintenance protocols.

Innovative PHCbi brand incubators leverage a patented copper enriched stainless steel for incubator chamber interiors.



Germicidal barrier delivers copper's continuous passive decontamination benefits and is mostly corrosion-proof



Reduces downtime for cleaning and maintenance protocols



Designed to ensure highly accurate, reproducible chamber conditions.



Cell-IQ™ CO₂ Incubator
MCO-170AICUVL-PA | 10119-820

PHCbi Brand Equipment as Your Partner for Improved Corporate Citizenship



Equipment Replacement Benefits

Upgrading your ULTs, cryogenic freezers, and incubators to PHCbi brand products is the first step in improving your sustainability. Benefits include:



Lower total cost of ownership through energy efficiency, reduced consumable costs



Improved security, performance, and reproducibility



Reduced cross contamination potential



Improved laboratory safety and efficiency

Environmental Impact

By replacing 100 legacy freezers with ultra-efficient freezers, you'll save the release of 366 tons of CO₂ into the air each year. That equates to approximately:



73.9 cars removed from the road³

-or-



37,361 gallons of gas not consumed³

-or-



4.4 tanker trucks of gasoline now empty³



References

1. Based on independent third-party testing at time of publication. ENERGY STAR test results for submitted products can be compared for performance across the competitive market. For results see the ENERGY STAR website www.energystar.gov/productfinder/product/certified-lab-grade-refrigeration/details/2404812 ENERGY STAR Certification Number 4790599804.
2. ENERGY STAR, www.energystar.gov/productfinder/product/certified-lab-grade-refrigeration/details/24048
3. U.S. Environmental Protection Agency, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> last accessed 9/13/2023

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