



## Cardinal Health™ Laboratory Products

# Vaccine storage solutions

The storage of vaccines requires precise and reliable refrigeration and freezer solutions to ensure vaccine integrity and potency.

At each step of the vaccine supply chain, proper vaccine storage plays a crucial role in the quality of vaccines delivered to the community. Refrigerators, freezers, ultra-low temperature freezers and transport coolers from Cardinal Health provide sustainable and precise temperature performance and control that help achieve the temperature storage requirements of vaccines.

There are a multitude of COVID-19 vaccines in development or with Emergency Use Authorization (EUA) with differing storage requirements ranging from +2° to +8°C to an ultra-low -70°C.<sup>1,4</sup>

Cold storage solutions from Cardinal Health come in a range of sizes and features to accommodate the individual storage requirements of each facility. Our team can work with you to identify optimal configurations that provide enough storage space to accommodate your vaccine inventory without overcrowding, which helps ensure the safety of vaccines delivered.

## Cardinal Health™ Laboratory Products

# Laboratory refrigerators

Premier Plus refrigerators from Cardinal Health are purpose-built for vaccine and biological material storage. The units are driven by variable speed cooling technology, a design feature that delivers precise temperature performance and control between +2° to +8°C, the specified temperature range for refrigerated vaccine storage. These refrigerators include the recommended safeguards from the Centers for Disease Control and Prevention, including self-closing door hinges, door alarms and door locks.<sup>2</sup>

Our laboratory refrigerators come in a variety of sizes and storage capacities to meet the needs of your facility. These units include glass doors for easy visualization of vaccine inventory.<sup>3</sup>

### Ordering information

Material No.	Description
<b>CAX2305GA</b>	Premier Plus high-performance refrigerator, glass door, 23 cu. ft.
<b>CAX3005GA</b>	Premier Plus high-performance refrigerator, glass door, 30 cu. ft.
<b>CAX2305PA</b>	Premier Plus pharmacy refrigerator, glass door, 23 cu. ft.
<b>CAX3005PA</b>	Premier Plus pharmacy refrigerator, glass door, 30 cu. ft.
<b>CAX5005PA</b>	Premier Plus pharmacy refrigerator, glass door, 51.1 cu. ft.
<b>CAG505GA</b>	Pro undercounter refrigerator, glass door, 5.5 cu. ft.



CAX2305GA

CAG505GA

# Laboratory freezers

Premier Plus laboratory freezers from Cardinal Health are designed for applications requiring storage of vaccines, reagents, pharmaceuticals, biological and other commonly used laboratory materials such as primers, siRNA molecules and fetal bovine serum. Our laboratory freezers are designed to meet the requirements for pharmaceutical and vaccine storage at temperature ranges from -15°C to -35°C.<sup>2</sup>

Premier Plus laboratory freezers from Cardinal Health come in a variety of sizes and temperature ranges to meet your facility requirements.<sup>3</sup>

### Ordering information

Material No.	Description
<b>CAX2320FA</b>	Premier Plus high-performance -20°C freezer, manual defrost, 23 cu. ft.
<b>CAX2330FA</b>	Premier Plus high-performance -30°C freezer, auto defrost, 23 cu. ft.
<b>CAX3030FA</b>	Premier Plus high-performance -30°C freezer, auto defrost, 30 cu. ft.
<b>CAX5030FA</b>	Premier Plus high-performance -30°C freezer, auto defrost, 51.1 cu. ft.



CAX3030FA

## Cardinal Health™ Laboratory Products

# Ultra-low temperature freezers

Ultra-low temperature freezers from Cardinal Health are designed to protect precious samples and vaccines while reducing energy costs. With new energy savings and sustainability features, our ultra-low freezers feature a range of upright models, maximizing storage capacity up to 60,000 2 mL vials.

Maintaining the viability of specimens and vaccines requires ultra-low freezers designed to deliver superior temperature uniformity and lowest variation possible. These freezers support ultra-low temperature storage between -50°C and -86°C and have five storage configurations.<sup>3</sup>

### Ordering information

Material No.	Description
<b>CAR30086FA</b>	-86°C Ultra-low temperature freezer, 300 2 in. cryobox
<b>CAR40086FA</b>	-86°C Ultra-low temperature freezer, 400 2 in. cryobox
<b>CAR50086FA</b>	-86°C Ultra-low temperature freezer, 500 2 in. cryobox
<b>CAR60086FA</b>	-86°C Ultra-low temperature freezer, 600 2 in. cryobox
<b>CARC0386A</b>	-86°C Ultra-low temperature chest freezer, 63 2 in. cryobox, 3 cu. ft.



CAR60086FA

# Transport coolers and chests

In order to keep vaccines safe during transit, transport coolers provide a mobile, non-electrical low temperature maintenance solution. Our ThermoSafe offering meets the transport and storage needs of temperature sensitive vaccines and comes in a variety of sizes.<sup>1,3</sup>

### Ordering information

Material No.	Description
<b>C8878-1 (304)</b>	Transport chest, 0.7 cu. ft., inner dimensions 11.31 x 10.38 x 10.63 in.
<b>C8881-1 (450)</b>	Transport chest, 1.5 cu. ft., inner dimensions 15 x 14 x 15.25 in.
<b>C8875-1 (303)</b>	Transport chest, 2.7 cu. ft., inner dimensions 17 x 16.5 x 16.38 in.
<b>C8875-2 (301)</b>	Transport chest, 3.75 cu. ft., inner dimensions 22.81 x 13.5 x 21 in.
<b>M1065-2 (314)</b>	Fiberboard coolers, .44 cu. ft., inner dimensions 10.5 x 7.25 x 10 in.
<b>C8879-50 (309)</b>	Fiberboard coolers, 1 cu. ft., inner dimensions 12 x 12 x 11.5 in.
<b>M1065-7 (399)</b>	Fiberboard coolers, 1.5 cu. ft., inner dimensions 19.38 x 12.38 x 12.31 in.
<b>C887-3 (307)</b>	Fiberboard coolers, 2 cu. ft., inner dimensions 17 x 16.5 x 12.63 in.
<b>M1070-27 (931)</b>	Transporter, 0.30 cu. ft., inner dimensions 5 x 7.75 x 9.75 in.
<b>PP640 (640)</b>	Transporter, 0.30 cu. ft., inner dimensions 9.75 x 7.50 x 7.50 in.
<b>M1070-28 (932)</b>	Transporter, 0.47 cu. ft., inner dimensions 7.88 x 10.75 x 12.75 in.
<b>M1070-30 (960)</b>	Transporter, 2.22 cu. ft., inner dimensions 15.75 x 10.75 x 22.75 in.



C8878-1



M1065-7

# Temperature data loggers and remote monitoring solutions

Cold storage units used for vaccine storage must utilize a temperature monitoring device or data logging device. These devices are crucial for ensuring an accurate temperature history and provide easy-to-use solutions for staff who have the daily responsibility of monitoring vaccine storage temperatures. They also provide assurance of vaccine viability and reduce costs associated with vaccine waste that comes from the discard of vaccines stored in out-of-range temperatures.<sup>2</sup>

### Ordering information

Material No.	Description
ST100-101	Thermo Scientific™ Smart-Tracker -40°C to +85°C, 5° calibration wireless with internal temperature probe
ST100-102	Thermo Scientific™ Smart-Tracker -40°C to +85°C, wireless with internal temperature probe
ST101-100	Thermo Scientific™ Smart-Tracker -200°C to +200°C, wireless with external temperature probe
D3016RUSB (LTTRED3016RUSB)	Thermco Logtag® VFC digital data logger, -40°C to +99°C, vaccine storage, probe, vial, bracket, including cradle with USB
D3016R† (LTTRED3016R)	Thermco Logtag® VFC digital data logger, -40°C to +99°C, vaccine storage, probe, vial, bracket, excluding cradle
ACCRT8002	Thermco Simple VFC compliant large display single probe fridge/freezer, digital data logger with software-less reporting, -50°C to +70°C, vaccine storage
TREL3016 (LTUTREL3016)	Thermco Logtag® digital data logger, -90°C to +40°C, vaccine storage, probe, buffer
EL3016VCD (LTTREL3016CVD)	Thermco Logtag® digital data logger, -90°C to +40°C, vaccine storage, air probe
LTUTREL16	Thermco Logtag® digital data logger, -90°C to +40°C, vaccine storage, air probe
BERFT2ULF	Thermco digital data logger, -90°C to +30°C vaccine storage, air probe
ED30WIFI (LTUTRED30WIFI)	Thermco Logtag® digital data logger, -40°C to +99°C, vaccine storage, WIFI
LTIHID	Thermco Logtag® docking station/cradle/operating software

## Cardinal Health™ Laboratory Products

# Temperature data loggers and remote monitoring solutions (continued)

### Smart-Vue™ wireless monitoring solutions

Smart-Vue protects the quality of your samples by continuously monitoring equipment conditions and will remotely notify you if conditions for sample integrity are compromised. In addition, Smart-Vue's data logging capabilities assist with compliance with FDA, GxP and other regulatory requirements.

### Smart-Vue™ Pro wireless monitoring system

A smart solution provides a new Vue in protection designed with simplicity, compliance and optimization in mind. Smart-Vue Pro is a next-generation solution for sample storage and processing. The ability to select the configuration of probe, module and network type allows you to build the system you need. The modular, customizable architecture allows for easy expansion without costly upgrades. Smart-Vue Pro is compatible with multiple brands and types of equipment. New equipment and labs can be added to existing Smart-Vue Pro systems.

### Thermo Scientific™ InSight wireless monitoring

InSight is a wireless monitoring solution designed to proactively monitor your cold storage equipment. InSight consists of wireless modules (motes), sensors and software tools that allow you to monitor your cold storage equipment's temperature, energy consumption, door access, reliability, predictive failure analytics and other parameters using Wi-Fi or proprietary wireless protocols. Alarms are issued automatically to users' email and mobile devices when setpoint breaches are detected in the system.

This is not a comprehensive list of products available.

View our full equipment offering at [cardinalhealth.com/lab](https://www.cardinalhealth.com/lab) or contact your Cardinal Health sales representative.

View our COVID-19 resources at [cardinalhealth.com/lab-covid-19](https://www.cardinalhealth.com/lab-covid-19)

† Requires the cradle docking station/operating software LTIHID

**References:** 1. COVID-19 Vaccination Program Interim Playbook pages 55-61, US Dept. of Health and Human Services, Centers for Disease Control, October 2020. [https://www.cdc.gov/vaccines/imz-managers/downloads/COVID-19-Vaccination-Program-Interim\\_Playbook.pdf](https://www.cdc.gov/vaccines/imz-managers/downloads/COVID-19-Vaccination-Program-Interim_Playbook.pdf). 2. CDC. Vaccine storage and handling toolkit. November 20, 2020. <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf>. 3. Cardinal Health Laboratory Products Cold Storage. <https://www.cardinalhealth.com/en/product-solutions/medical/laboratory-products/lab-equipment/cold-storage.html>. 4. FDA Takes Key Action in Fight Against COVID-19 By Issuing Emergency Use Authorization for First COVID-19 Vaccine. December 11, 2020. <https://www.fda.gov/news-events/press-announcements/fda-takes-key-action-fight-against-covid-19-issuing-emergency-use-authorization-first-covid-19>.

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