



CYTO SAVER Controlled-Rate Freezer

Reliable, Safe, and Efficient Freezing Without Liquid Nitrogen

Freeze your valuable samples down at controlled rates to ultra-low temperatures without the hassle and expense of liquid nitrogen or dry ice. Get feedback on the temperature of your samples in real time and with intuitive temperature reports. Cut down on downtime between freeze cycles to maximize your sample freezing throughput.



Liquid Nitrogen-Free

Freeze cryovials and blood bags without having to resupply or handle hazardous liquid nitrogen, and without the risk of LN2-borne mycoplasma contamination.

Effortless Control

Program and save your desired freezing pattern and generate temperature reports with the built-in touch panel, giving you complete control and visibility throughout your cryopreservation.

Efficient Workflow

Minimize downtime after freezing with the CytoSAVER's built-in heater, warming it back up to starting temperature in minutes to optimize your freezing.

Achieve consistent and efficient cryopreservation down to $-80\text{ }^{\circ}\text{C}$ to ensure the integrity and viability of your stem cells, immune cells, blood samples, and vaccines with the compact CytoSAVER Controlled-Rate Freezer, the cryopreservation expert's partner in research.

The CytoSAVER is great for cGMP applications. Ask for CytoSAVER models that comply with FDA Title 21, CFR Part 11. IQ/OQ and validation are available upon request as well.



No liquid nitrogen, no dry ice

The hassle and cost of handling and resupplying hazardous materials for cryopreservation are a thing of the past. The CytoSAVER uses innovative Stirling coolers to contact-freeze your samples down to ultra-low temperatures.

Programmable freeze patterns

With its easy-to-use touch screen, you can set your CytoSAVER to freeze samples anywhere from room temperature to -80°C . Freeze rates can be as slow as 0.1°C per minute, and up to 3°C per minute. Include hold steps in the freeze cycle to let cells nucleate.

Intuitive user interface

Track the temperature of your samples as you freeze them with the CytoSAVER's temperature reporting using plate and sample temperature probes. Export temperature logs to your external memory drive as a PDF graph or as CSV data points.

Versatility and flexibility

Freeze tissue, cells, and cultures in cryovials, blood bags, or both at the same time in the CytoSAVER's customizable freezing chamber. The vial rack accessories are great for freezing 81 or 171 cryovials of 2 mL capacity at once.

Cost and space saving

With its compact design, the CytoSAVER fits on a standard benchtop and doesn't need a constant supply of expensive liquid nitrogen or dry ice. The convenient handle at the top (FZ-2100 and FZ-2200 only) also make it easy to carry.

Mycoplasma-free peace of mind

Cryopreserve biological samples in a sterile environment without the risk of LN₂-borne mycoplasma contamination with the CytoSAVER, ideal for clean rooms and isolators.

Optimized workflow

Along with its high capacity, the CytoSAVER also has a built-in heater designed to return its freezing chamber to starting temperature, getting it ready for the next freeze cycle for quick turnaround.

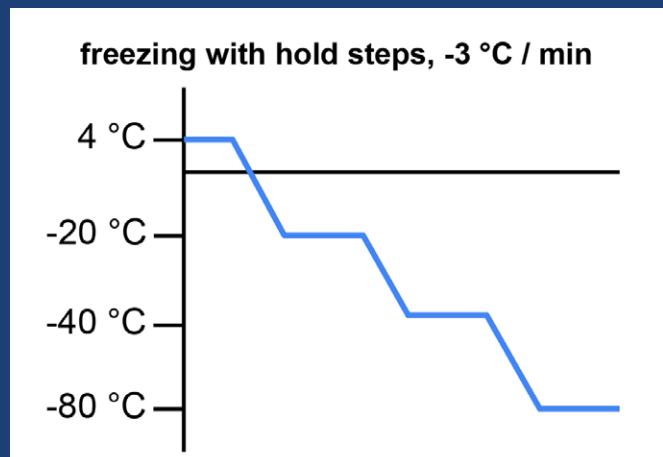
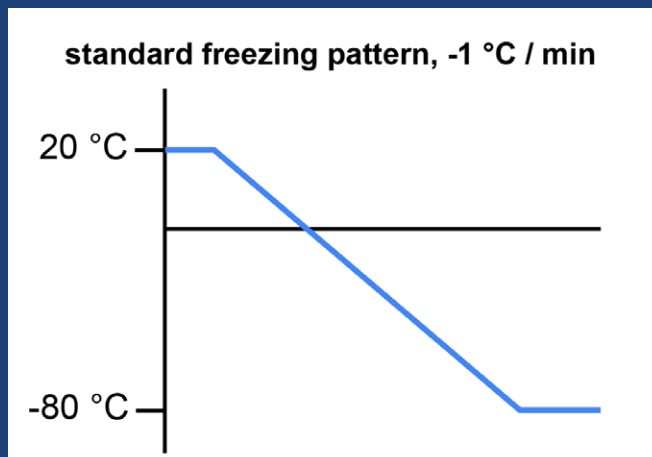


Specifications

	Medium CytoSAVER	Medium CytoSAVER (cGMP)	Large CytoSAVER	Large CytoSAVER (cGMP)
Model #	FZ-2100	FZ-2200	FZ-3100	FZ-3200
2 mL cryovial capacity	81		171	
250 mL blood bag capacity	~2		~4	
Customizable vial rack?	Yes			
Freezing chamber internal dimensions (cm) W x L x H	17.4 x 13.2 x 6.5		30.0 x 13.2 x 5.8	
External dimensions (cm) W x L x H	47.3 x 33.0 x 45.5		51.0 x 42.0 x 58.0	
Weight (kg)	17		30	
Lower limit temperature (°C)	-80			
Freeze rate (°C / min)	min. -0.1, max. -3			
AC power supply	100-240 V, 50/60 Hz			
Power consumption (W)	max. 150		max. 300	
FDA Title 21 compliant?	No	Yes	No	Yes
IQ/OQ and validation?	No	Yes	No	Yes

Note: The CytoSAVER is not intended for long term sample storage.

Example Freeze Pattern - Try these freeze patterns for your samples





Accessories



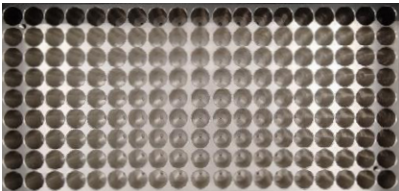
Medium cryovial rack

FB-2000

Capacity: 81 x 2 mL cryovials

Compatibility: FZ-2100, FZ-2200

Customizable to your cryopreservation specifications, including cryovial capacity and size, simultaneous freezing with other types of containers, etc.



Large cryovial rack

FB-3000

Capacity: 171 x 2 mL cryovials

Compatibility: FZ-3100, FZ-3200

Customizable to your cryopreservation specifications, including cryovial capacity and size, simultaneous freezing with other types of containers, etc.



IQ/OQ and validation

FO-0001

Compatibility: FZ-2200, FZ-3200

Compliance with FDA Title 21, CFR Part 11 for cGMP applications. The CytoSAVER will be validated using calibrated instrumentation, including thermometers, timers, etc.
