FTS Systems

SP SCIENTIFIC

HistoChill™ Tissue Freezing Bath

Overview

The HistoChill™ low temperature bath is mechanically refrigerated with an ultimate low temperature of -80°C. Because it's mechanically refrigerated there's no need for storing, crushing and handling hazardous and expensive dry ice. It's used for the rapid freezing of tissue samples in Histology and Pathology Labs as well as other disciplines. Using a liquid medium, the HistoChill rapidly and thoroughly freezes samples minimizing ice crystal formation compared with the slow freezing rates encountered in a cryotome.

The HistoChill™ is available in two configurations: the basic HistoChill for general freezing applications and the advanced model with built in magnetic stirrer and temperature control for more stringent, tissue specific or R&D applications. The advanced model includes digital set point and temperature indication.

Key Benefits

- Lab throughput increased by rapid freezing of tissue samples (seconds)
- Ice crystal formation minimized by rapid freezing, making microscopic examination of the sample more precise
- Frost build minimized while introducing and extracting samples from the bath through a warming loop on the upper outside wall of the refrigeration chamber
- Hinged & insulated lid provides easy access to the bath
- Liquid medium increases temperature uniformity and stability of specimen
- Eliminates costs and hazards associated with expendable refrigerants

Key Features

- Mechanically refrigerated
- Frost reduction loop
- Hinged & insulated chamber lid
- Small footprint tabletop design
- Operates on standard 120 volt or 220 volt power sources

Client Feedback on HistoChill™ with Novec™ 7000 fluid

"Our technicians use the HistoChill™ in the Surgical Frozen Section Lab and they report that they 'love it.' It was -80°C while one tech had it in use, and she reported that after snap freezing, the tissue cut beautifully on the cryostat at -23°C."

Deborah K. Edwards, HTL/QIHC (ASCP)

Contact a Porter Creek Instruments Technical Sales Representative at 888-534-3128 or visit us at www.PorterCreekInstruments.com

HistoChill™ Specifications

Model	HC80-0 (no control)	HC80-1 (with control)
Maximum Low Temperature	-80°C	-80°C
Bath Volume	1.5L	1.5L
Magnetic Stirrer	No	Yes
Temperature Control*	No	Yes
Stability	N/A	+/- 0.1°C
Uniformity	N/A	+/- 0.1°C
Accuracy	N/A	+/- 0.1°C
Temperature Indication	No	Yes
Display	N/A	0.1°C
Dimensions (w x d x h)	13 " X 25.5" X 19"	13" X 25.5" X 19"
Height-to-Work Surface above bench top	13.5"	13.5"
Weight (lbs)	95	96
Electrical: A voltage	120V/60HZ/12A	120V/60HZ/16
Electrical: D voltage	220V/50HZ/6A	220V/50HZ/8A
Agency Approvals	UL #61010-1 CAN/CSA 22.2 #61010-1 CE pending	UL #61010-1 CAN/CSA 22.2 #61010-1 CE pending

HistoChill™ Fluid Comparison**

Properties	3M Novec ™ 7000	Isopentane
Boiling Point @ 1 atmosphere	34°C	30.6°C
Freeze Point	-122.5°C	-160°C
Liquid Density g/ml	1.4	0.616
Tox: 8 hr exposure guideline (ppmv)	75	ACGIH 600 ppm TWA
Eye Irritation	Practically non-irritating	Irritant
Skin Irritation	Negative	Irritant
Mutagenicity	Negative	Unknown
Flash Point	None	-51°C
Flammability	None	Extremely flammable

**Optional temperature control available. A three-mode, proportional-integral-derivative (PID) microprocessor control offers rapid temperature stabilization. It displays a bright, continuous readout of temperature with 0.1°C indication.*

***System tested using 3M Novec™ 7000. The Histochill is not intended, nor has it been tested/designed to be safely used with extremely flammable fluids like Isopentane.*