

Controlled Rate Freezer

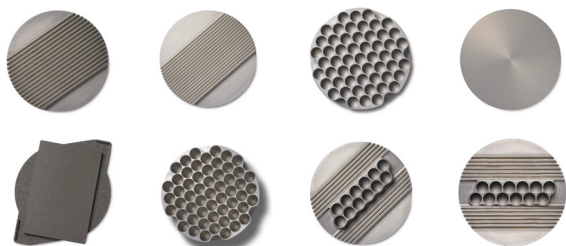
Liquid Nitrogen & Cryogen free



Specifications:

Overall size (W x D x H):	36.9 x 26.6 x 45.3cm (inc. lid)
Weight:	9.8kg
Power requirements:	100-240V, 50-60Hz, 2.5A max
Operating temperature (environment):	20° to 30°C

- A number of fixed plates available (standard straws, high security straws, cryovials, cryocyte bags & microplates)
- Freezer can be run as a stand alone pre-programmed unit or connected to a control PC (computer with serial port and control software and Windows)
- Software allowing configuration of existing profiles, creation of new customer profiles, data logging and reporting. All data is logged in an encrypted and Excel readable form.
- Standard, pre-set cooling profiles available
- Backup electrical supply: 750VA UPS capable of running freezer for 3 hour cycle in the case of an electrical power failure
- Cleaning: Seamless, no dirt traps, may be cleaned using standard wipes



Liquid nitrogen free and cryogen free controlled rate freezer for research into the cryopreservation of a wide range of material including: embryos, stem cells, mammalian cells, spermatozoa, antibodies, tissue sections and rodent organs. The Controlled Rate Freezer (CRF) brings accuracy, precision and reproducibility to biological cryopreservation.

Unlike conventional liquid nitrogen based controlled rate cooling equipment, the CRF-1 poses no contamination risk and can be used in cleanrooms and barrier facilities. The CRF fits neatly and quietly on a bench-top and its performance in terms of cell viability after freezing is comparable or better than standard liquid nitrogen freezers. As alcohol is not used, there is also no potential fire risk. The CRF will cool down to -100°C with straws.

The cooling rate of the CRF is precisely controlled, ensuring accuracy and reproducibility throughout the freezing profile, especially for the important nucleation/seeding phase. This ensures optimal recovery of cells upon thawing. Operation is simple and can be carried out with or without a PC; data can be logged via PC software and cooling profiles are directly displayed. Different cooling profiles are available from a drop down menu and customized profiles can be written.

Features:

- Accurate and reproducible control of cooling rates and sample temperatures
- Easy to use and samples can be nucleated/seeded in-situ
- Linear and non-linear cooling profiles
- Low running costs: estimated at 1% of liquid nitrogen controlled rate freezing
- Temperature remains at -100°C at the end of cycle for straw applications until freezer is switched off
- Uninterruptible Power Supply (UPS): complete cycle run if power fails (supplied as an optional accessory)
- CE marked (laboratory use)
- Servicing and calibration available
- 3 year warranty

Cat. No.	Description
ES55192-H00	Controlled rate freezer, Plate for 16 x 0.5mL CBS high security straws
ES55192-H01	Controlled rate freezer, Plate for 18 x 0.3mL IMV straws
ES55192-H02	Controlled rate freezer, Plate for 55 x 1.8mL cryovials (0.5mL max fill)
ES55192-H03	Controlled rate freezer, Flat Plate for various items/vessels
ES55192-H04	Controlled rate freezer, Plate for 1 x SBS microplate
ES55192-H05	Controlled rate freezer, Plate for 55 x 1.8mL cryovials (1.0mL max fill)
ES55192-H06	Controlled rate freezer, Plate for 10 x 0.5mL CBS high security straws & 12 x 1.8mL cryovials (0.5mL max fill)
ES55192-H07	Controlled rate freezer, Plate for 12 x 0.3mL IMV straws & 12 x 1.8mL cryovials (0.5mL max fill)