

DEVICE FOR RAPID COOLING OF BIOLOGICAL OBJECTS



Areas of Application

The device is designed for rapid freezing of tissues, cultures of somatic cells, and reproductive cells during cryopreservation and storage at the temperature of liquid nitrogen. The application fields are reproductive medicine, cattle breeding, and scholarly research

Specification

The device size is 787 × 400 × 520 mm. The main components are vacuum pump (2NVR-5DM); thermos with a capacity of 8.4 liters (useful capacity is 4 l); and single-channel recorder of temperature within the range from +50 °C to -270 °C connected to computer via USB port. The time of record of freezing ranges from 10 to 118 s. The system requirements are Windows ME/NT/2000/XP/Vista /7/8/10

IPR Protection

IPR3

Advantages

The device has no analogs. It enables ultrafast freezing of objects in supercooled nitrogen (-210 °C); provides a high share of cells survived in the samples after thawing-freezing cycle; raises efficiency of living object storage protocols

Stage of Development.

Suggestion for Commercialization

IRL3, TRL5

Manufacture, modification, supply, warranty service, and staff training, upon request

Contact Information

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