

# **StrataCooler® Cryo Preservation Module and StrataCooler® Cryo Lite Preservation Module**

## **INSTRUCTION MANUAL**

Catalog #400005 and #400006

Revision #122001a

IN# 70081-00

## LIMITED PRODUCT WARRANTY

Stratagene warrants to the original purchaser that this product is free from defects in workmanship or materials for a period of one (1) year from the date of purchase, as indicated on the original invoice, under normal use.

The sole and exclusive remedy under this limited warranty is repair or replacement of defective products or parts thereof. Repair or replacement products or parts thereof will be furnished solely on an exchange basis and are obtainable only by the original purchaser. The original purchaser shall return the defective product, or part thereof, properly packaged, postage or shipping costs prepaid to Stratagene. Loss or damage during shipment shall be at the risk of the purchaser.

This limited warranty does not include repair or replacement necessitated by accident, neglect, misuse, relocation, unauthorized repair or modification of the product.

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In no event will Stratagene be liable for any direct, indirect, consequential or incidental damages, including lost profits, or for any claim by any third party, arising out of the use, the results of use or the inability to use this product.

# ORDERING INFORMATION AND TECHNICAL SERVICES

## United States and Canada

### Stratagene

11011 North Torrey Pines Road  
La Jolla, CA 92037

**Telephone** (858) 535-5400

**Order Toll Free** (800) 424-5444

**Technical Services** (800) 894-1304

**Internet** tech\_services@stratagene.com

**World Wide Web** www.stratagene.com

## Stratagene European Contacts

Location	Telephone	Fax	Technical Services
<b>Austria</b>	0800 292 499	0800 292 496	0800 292 498
			+43 (0)1795 67036
<b>Belgium</b>	00800 7000 7000	00800 7001 7001	00800 7400 7400
	0800 15775	0800 15740	0800 15720
<b>France</b>	00800 7000 7000	00800 7001 7001	00800 7400 7400
	0800 919 288	0800 919 287	0800 919 289 +33 (0)141 91 86 42
<b>Germany</b>	00800 7000 7000	00800 7001 7001	00800 7400 7400
	0800 182 8232	0800 182 8231	0800 182 8234 +49 (0)699 509 6197
<b>Netherlands</b>	00800 7000 7000	00800 7001 7001	00800 7400 7400
	0800 023 0446	+31 (0)20 312 5700	0800 023 0448
	+31 (0)20 312 5600		+31 (0)20 312 5792
<b>Switzerland</b>	00800 7000 7000	00800 7001 7001	00800 7400 7400
	0800 563 080	0800 563 082	0800 563 081
<b>United Kingdom</b>	00800 7000 7000	00800 7001 7001	00800 7400 7400
	0800 917 3282	0800 917 3283	0800 917 3281 +44 (0)207 365 1056

## All Other Countries

Please contact your local distributor. A complete list of distributors is available at [www.stratagene.com](http://www.stratagene.com).



# StrataCooler® Cryo Preservation Module and StrataCooler® Cryo Lite Preservation Module

## SPECIFICATIONS

Preservation module	Catalog #	Specifications		
		Capacity	Dimensions	Weight
StrataCooler® Cryo preservation module	400005	32 standard cryovials	12 cm W × 21 cm D × 8 cm H	1 kg
StrataCooler® Cryo Lite preservation module	400006	7 standard cryovials	9 cm diameter × 9 cm H	0.30 kg

## APPLICATION

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Most cell lines of higher eukaryotes can be preserved indefinitely by storage at  $-185^{\circ}\text{C}$  in liquid nitrogen. This temperature ensures that the survival rate of the cells will not significantly change over years of cryopreservation.<sup>1</sup> Cells are prepared for freezing by suspension in special, tissue culture freeze media. These freeze media have a high protein content provided by fetal calf serum (FCS) and dimethylsulfoxide (DMSO) to prevent water crystal formation.

Prior to permanent storage in liquid nitrogen, the temperature of the cells must be lowered to approximately  $-80^{\circ}\text{C}$ . The proportion of cells that survive this process is determined by the freezing method used. Most cell types show  $>50\%$  survival when cooling rates are kept at  $0.2\text{--}1^{\circ}\text{C/minute}$ . The StrataCooler® Cryo preservation module and the StrataCooler Cryo Lite preservation module have been designed to freeze mammalian and insect cells at a controlled rate of  $0.4\text{--}0.6^{\circ}\text{C/minute}$  to achieve an 80–90% survival rate.

## PROTOCOL

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**Note** *Before use, the StrataCooler Cryo preservation module must be cooled to 4°C by overnight refrigeration.*

1. Harvest the cells by spinning in a centrifuge. Resuspend the cells in ice-cold freeze medium (see *Medium*). Transfer the cell suspension to labeled cryovials.

**Note** *Most cell lines freeze well at 10<sup>6</sup> cells/ml. Freeze in 1-ml aliquots.*

2. Transfer the cryovials to the prechilled (4°C) StrataCooler Cryo preservation module.
3. Place the StrataCooler Cryo preservation module in a –80°C freezer.
4. After overnight incubation at –80°C, transfer the vials to liquid nitrogen for long-term storage.

## MEDIUM

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### Freeze Medium

95% FCS

5% DMSO

Combine, filter sterilize and store at –20°C

## REFERENCE

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1. Simione, F. P., and Brown, E. M., eds. (1991) "ATCC Preservation Methods," Second Ed. American Type Culture Collection, Rockville, Maryland.

## ENDNOTE

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StrataCooler® is a registered trademark of Stratagene in the United States.