

Protocol CELL GUARDIAN

Cryopreservation medium for mammalian cells

Traditional cell freezing protocols for mammalian cells use dimethyl sulfoxide (DMSO) or glycerol as a cryoprotectant in culture medium with or without serum. The cell suspension is slowly cooled at a rate of

1-3°C per minute in a rate-controlled freezer. There are many other methods to freeze cells using less specialized equipment but all use the same strategy, a slow decrease in temperature over time.

Cell Guardian - an innovative cryopreservation medium that defies traditional cell freezing methodology. Simply, resuspend the cells in Cell Guardian then place the cryovial in a -80°C freezer overnight. One step and done! Cells can be kept at -80°C for long term storage or transferred to liquid nitrogen. Fast, Easy, and No Special Equipment.

Freezing cells:

1. Adhesion cells: Change medium when cell culture reaches 80% confluency. Freeze the cells the next day.

Suspension cells: Change or add fresh medium to the culture the day prior to freezing.

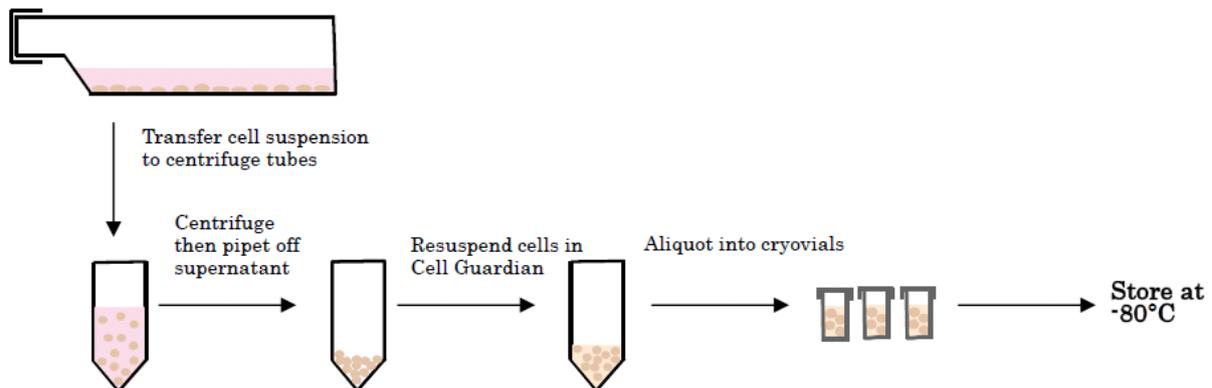
For best results, freeze cells during growth phase.

2. Transfer the cells into a centrifuge tube. Centrifuge at 1,000 - 1,500 rpm for 1-2 minutes.

3. Remove the supernatant and resuspend the cell pellet in Cell Guardian at a concentration of 5×10^5 - 1×10^7 cells/ml. To maintain high cell viability, optimization of cell concentration may be needed for some cell lines. Generally, 1×10^6 works well.

4. Aliquot the cells into cryogenic storage vials.

5. Place the vials in a standard test tube rack or cardboard storage box in a -80°C freezer. After freezing the cells overnight, the vials can be either maintained at -80°C or transferred to liquid nitrogen.



Thawing cells:

1. Incubate vial in 37°C water bath.

2. Transfer cells to a centrifuge tube. Add approximately 10 volumes of culture medium.

3. Centrifuge at 1,000 - 1,500 rpm for 1-2 minutes.

4. Remove supernatant

5. Plate cells

Catalog #	Description	Size
CP-100	Cell Guardian: Serum-free cryopreservation medium with DMSO	100 ml

Manufactured in clean room, class 10,000
ISO 13485 approved

For Research Use Only

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