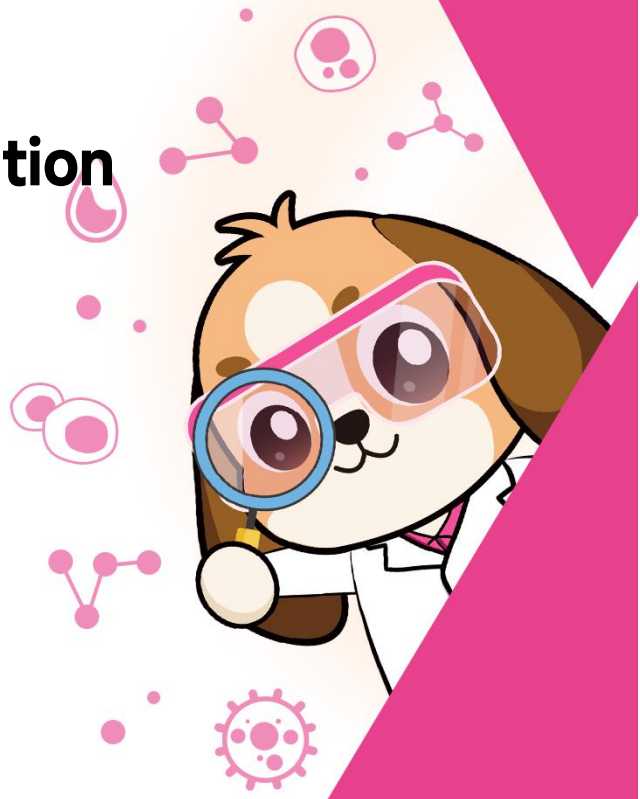
cyagen | OriCell™

User Manual

OriCell™ NCR Cryopreservation Medium For General Use

Catalog No. NCRC-10001



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Introduction

Cell cryopreservation refers to placing cells in a low temperature environment for long-term storage. The OriCell™ R&D team continuously optimizes the conditions for cell cryopreservation and recovery during long-term cell research, and has developed cryopreservation products suitable for many cells.

OriCell™ NCR Cryopreservation Medium For General Use can greatly reduce the damage of ice crystals to cells during cryopreservation, and effectively improve cell recovery rate and viability. Compared with the traditional cryopreservation solution, this product can save the time-consuming process of programmed cooling. The cells can be directly resuspended and placed at -80°C, and then transferred to liquid nitrogen the next day to complete the entire cryopreservation process.

OriCell™ NCR Cryopreservation Medium For General Use is suitable for common cell lines and various mesenchymal stem cells.

Note: **This product is only provided for further scientific research. It is not intended for diagnostic, therapeutic, clinical, household, or any other applications.**

When citing our products in academic journals, please indicate "OriCell™ + Catalog Number, from Cyagen Biosciences (Guangzhou) Inc."

Product Advantages

- Stable product performance, easy to use.
- The cell recovery rate is as high as 90%, suitable for cryopreservation of most mammalian cells.
- It can effectively maintain the multi-directional differentiation potential of stem cells.

- No need for programmed freezing step or programmed cooling device, directly put in 80 ° C refrigerator, saving a lot of time and energy.

QC

- Pass the detection of bacteria, fungi, mycoplasma, and endotoxins.
- Pass the detection of osmotic pressure and pH.
- Pass the detection of product quality.

Please reference "COA" for details.

General Handing Principles

1. Ensure that all equipment is kept clean and tidy.
2. Standard operation method. Please operate according to the method described in the product manual, strictly control the variables, and do a controlled experiment.
3. The ingredients should be properly stored in accordance with the storage conditions and used as soon as possible.

Product Stability and Storage Conditions

- Store at -20°C away from light for up to 2 years, or at 4°C away from light for up to 1 year.
- Please use this product before expiration date.

Cell Cryopreservation

Materials Required

- OriCell™ NCR Cryopreservation Medium For General Use (Cat. No.: NCRC-10001)
- Clean, sterile, and stable quality disposable consumables (pipettes, pipette tips, centrifuge tubes, etc.)
- Clean sealing film

Steps

1. Select cells in logarithmic growth phase, collect cells in centrifuge tubes according to common methods, and calculate the number of cryopreserved cells required according to the density of cultured cells and the size of the cell cryopreservation tube used (reference number: 5×10^5 to 5×10^6 cells/mL).
2. Take the amount of cell suspension equivalent to the required number of cells, put it in a centrifuge tube, and collect the cultured cells by centrifugation (reference centrifugation conditions: 250xg, centrifugation for 3-5 minutes).
3. Aspirate the supernatant.
4. Add an appropriate amount of OriCell™ NCR Cryopreservation Medium For General Use into a centrifuge tube, mix well, and prepare a cell mixture.
5. Dispense the cell mixture in the centrifuge tube into fully labeled cryopreservation tubes.
6. Place the cryopreservation tubes directly in a -80°C refrigerator, and transfer it to liquid nitrogen for long-term storage after 24 hours.

Thawing and Establishing of Cells

Materials Required

- Complete medium corresponding to cells

Steps

1. Preheat the water bath at 37°C.
2. Warm the complete medium to 37°C.
3. Add more than 8 mL of complete medium to a 15 mL centrifuge tube for use.
4. Take the cells out of the -80°C refrigerator, put them in a 37°C water bath and shake them quickly to thaw the cryopreservation solution.

   Note: **During the thawing process, the cryotube must be shaken to ensure that solution thaws quickly and evenly.**

5. When shaking, please avoid water immersing the pipe cover to cause pollution.
6. When the cryopreservation solution has thawed into ice crystal with a diameter of about 2 mm, stop the water bath. Continue to shake the cryotube until the ice crystal melts thoroughly.
7. Wipe the outer surface of the cryotube with 75% ethanol.
8. Open the cryopreservation tube in the ultraclean bench, use a Pasteur pipette to suck the cell suspension, and transfer it to the prepared centrifuge tube.
9. Wash the cryotube once with 1 mL of complete medium to collect residual cells to reduce loss.
10. Centrifuge the cell suspension at 250×g for 4 minutes.
11. Remove the supernatant after centrifugation. Add 2 mL of complete medium, gently pipette the cell pellet, blow and mix thoroughly.
12. Shake the cells well and incubate them in a CO_2 incubator at saturated humidity, 37°C, 5% CO_2 inside.