cyagen | OriCell™

User Manual

OriCell™ NCR Protein-Free Cryopreservation Medium For General Use

Catalog No. NCPF-10001

We help you discover life

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 various cells.

OriCell™ NCR Protein-Free 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. At the same time, it does not contain any exogenous protein components, reducing the chance of cell contamination. A large number of cell cryopreservation data have verified that this product has very limited damage to cryopreserved cells, and has a high cell survival rate after resuscitation, which can maximize cell 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 Protein-Free Cryopreservation Medium For General Use is suitable for most common cell lines, stem cells, somatic cells, etc. (The recovery viability of different cells may vary).

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 chemical composition is clear, without any foreign protein component.
- 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.
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 4°C in the dark. If it is not opened, the shelf life is 1 year.
- Please use it up within 2 months after opening.
- Pass the detection of product quality.

Cell Cryopreservation

Materials Required

- OriCell™ NCR Protein-Free Cryopreservation Medium For General Use (Cat. No.: NCPF-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 cryopreservation medium (Cat. No.: NCPF-10001) 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.

Cell Recovery

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 the 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.