

# **Lymphocyte Cryopreservation Medium**

Catalog # SN-06-1410 500 mL

#### **Product Introduction**

The Lymphocyte Cryopreservation Medium is a serum-free solution designed specifically for the cryopreservation of immune cells. This product minimizes cell damage during freezing, enhances post-thaw cell viability, and maintains the long-term functional characteristics of immune cells. The medium exhibits consistent batch-to-batch quality and has undergone safety evaluations as a cellular drug excipient, supporting IND approvals for cell therapies such as iNK (induced Natural Killer) cells.

#### **Product Information**

Table 1. Product Description of Lymphocyte Cryopreservation Medium

Product	Cat.No.	Amount
Lymphocyte Cryopreservation Medium	SN-06-1410	50mL

## Storage Conditions

Storage temperature: 4°C

Shelf life: 12 months

### **Cryopreservation of Immune Cells**

- 1. Label the appropriate number of cryovials based on the cell count to be frozen. (Reference freezing density: NK cells: 1 × 10<sup>9</sup> cells / 20 mL / vial; PBMC (Peripheral Blood Mononuclear Cells): 1-1.5 × 10<sup>7</sup> cells / mL / vial ).
- 2. Collect cells in the logarithmic growth phase using standard methods and transfer them to centrifuge tubes.
- 3. Centrifuge the cells (reference conditions: 300 × g for 10 minutes).
- 4. Aspirate the supernatant and add the Lymphocyte Cryopreservation Medium dropwise to the cell pellet. Mix gently to prepare a homogeneous cell suspension.



- 5. Aliquot the cell suspension into pre-labeled cryovials.
- 6. Perform controlled-rate freezing:
  - 6.1 Place the cryovials in a pre-cooled (4°C) freezing container and transfer the container to a -80°C freezer. After 24 hours, move the cryovials to a liquid nitrogen tank for long-term storage (temperature ≤ -135°C).
  - 6.2 Use a programmable freezer to cool the cell suspension at a rate of -1°C/min to -100°C (refer to the instrument manual). Immediately transfer the cryovials to a liquid nitrogen tank for long-term storage (temperature ≤ -135°C).

## Thawing of Cryopreserved Cells (NK Cells as an Example)

- 1. Retrieve the cryovials from the liquid nitrogen tank and transport them on dry ice to the cell culture facility.
- 2. Thaw the cryovials rapidly in a 37°C water bath with gentle agitation.
- 3. Once the cell suspension is mostly thawed (with only small ice crystals remaining), remove the cryovial, disinfect it, and transfer the contents to a biosafety cabinet.
- 4. Resuspend the NK cells in an appropriate volume of complete culture medium. Seed the cells into culture vessels at the recommended density and add pre-warmed complete medium.(Note: For PBMC, wash the cells by centrifugation, remove the supernatant, resuspend in medium, and seed at a density of 1-2 × 10<sup>6</sup> cells/mL.)
- 5. Mix the cell suspension gently using a cross-shaking method and place the culture vessel in a 37°C incubator with 5% CO<sub>2</sub> and saturated humidity for further culture.

#### **Applications** (NK Cells as an Example, Not Applicable to PBMC)

- 1. Retrieve the cryovials from the liquid nitrogen tank and transport them on dry ice to the cell culture facility.
- 2. Thaw the cryovials rapidly in a 37°C water bath with gentle agitation.
- 3. After thawing, transfer the cell suspension to an appropriate solution to prepare a working suspension. The recommended cell density is  $2.5-10 \times 10^7$  cells/mL. Use the cells for research purposes as required.