株式会社ケー・エー・シー

TC Protector

It is suitable for cell line cells and normal cells as well as ES cells, adult stem cells, and human iPS cells. It is not viscous and does not form bubbles. Thus, it is excellent in usability.

TC protector is a cell cryoprotective agent that does not contain any anima-derived components nor proteins and is chemically defined. It can be used in cells requiring serum addition, those without serum, and cells without proteins.

Characteristics

- It does not contain animal-derived components at all and is chemically defined.
- It does not contain any serum or protein.
- It is stored in a refrigerator and can be used immediately after storage.
- It is less viscous and usability is excellent.
- It does not require special equipment such as Programed Freezer. It can be directly stored at −80ºC

Freezing method

1. In case of adhesive cells, media should be changed at 80% confluence and be frozen on the next day.
   In case of floating cells, media change (or media supplementation) is conducted and should be frozen on the next day.
   *In order to freeze cells in a good condition, it is important to use cells from the logarithmic growth phase.
   *Cells that have reached confluence or overgrown result in a decreased survival rate after freezing.
2. Cells are harvested according to the standard procedure and are centrifuged at 1,500 rpm for 1 minute.
3. It is diluted with TC Protector to achieve 5×10^5〜1×10^7 cell/mL.
   *Cell suspension is maintained in ice water when cell counts are measured.
   *Since the appropriate cell number varies depending on cells, a pilot study must be conducted in advance. In general, 1×10^6 cells/mL is the target cell count.
4. Cells are stored at −80ºC in a Deep Freezer and are transferred into liquid nitrogen on the next day.

Thawing method

1. Ampules are placed in a warm water bath at 37ºC, and it is quickly thawed until it forms small ice mass.
2. Cell suspension is collected into a spitz tube and about 10× media is added. Then, it is centrifuged at 1,000–1,500 rpm for 1–2 minutes.
3. Cell pellet is checked and supernatant is discarded. Cells are seeded in accordance with the standard method.

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