

ES/iPS Cell Cryopreservation Solution

StemCell Keep

Protocol

StemCell Keep is a suitable ready-to-use **vitrification solution** for human ES/iPS cell preservation. Human ES/iPS cells are very sensitive for freezing and thawing damage and their survival rate after cryopreservation by slow cooling is quite low. So vitrification is recommended for preservation of these cell lines. *StemCell Keep* has been developed for high efficient, low toxic and easy handling vitrification solution without any protein and DMSO which might affect differentiation.

Kit Components:

Name	Size	Note
StemCell Keep	20 mL	Containing no DMSO and proteins

Usage**1. Freezing of ES/iPS cell colonies suspensions**

- (1) Prepare liquid N₂ in the clean bench.
- (2) Centrifuge suspended media of ES/iPS cell colonies and pellet them by elimination of supernatant at 4 ~ 10 °C.
- (3) Resuspend the cell pellet with 200µL of *StemCell Keep*.
- (4) **Pipette the cell suspension into a cryotube and immediately put it to liquid N₂ directly.** (If the successful vitrification would be achieved, the solution should be kept transparent after freezing.)
- (5) Transfer the cryotube into a liquid nitrogen chamber (-196 °C).

2. Thawing from preserved state

- (1) Keep the vials to be thawed in the liquid N₂ in the Dewar vessel.
- (2) Add the pre-warmed (37°C) media (1mL) directly to the vial immediately after taking out from liquid N₂.
- (3) Thaw the solution by gentle pipetting and add into the excess amount of medium. Centrifuge and plated the colonies on the feeder cell layer in a culture dish and culture in an incubator.

Expiration:

StemCell Keep can be used for 2 years after the manufacture date if stored properly at lower than 10 °C.

Storage:

Left-over solution can be stored at 4 °C or -20 °C for 2 years without losing its functional quality.

Precautions:

- This product is for research use only.
- We, BMG, are not liable to any accidents or damages caused by improper usage of the product.

Quality Control:

Bacterial tests:

Bacteria, fungi or mycoplasma contamination is all negative.

Chemical tests:

- (1) pH = 6.7 ~ 8.0 at RT
- (2) Endotoxin < 0.5 EU/mL

Ordering Information:

Product	Package Size	Code No.
StemCell Keep	20 mL	VPL-A1

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