



Universal Cryopreservation Solution

Catalog Number: ST03005

Size: 50 ml

Universal Cryopreservation Solution is a ready-to-use freezing solution that is suitable for freezing various types of cells, except human stem cells (human ESCs/iPSCs).

Product Description

Stemmera™ Universal Cryopreservation Solution is a freezing solution designed for long-term storage of many types of cells, including somatic cells (lines), progenitor cells, differentiated cells and permanent cell lines. It is not recommended to freeze human stem cells (Human ESCs/iPSCs). For human pluripotent stem cell freezing, we recommend Stemmera™ Serum-Free Cryopreservation Solution (Cat# ST03002).

Product Component

Component	Size	Storage	Cat #
Universal Cryopreservation Solution	50 ml	-20°C	ST03005

Storage and Handling

Stemmera™ Universal Cryopreservation Solution is shipped with dry ice. The solution should remain stable at 2 °C -8°C for 3-4 weeks, while at -20°C for at least 6 months upon opening. Making aliquots of solution is strongly preferred upon arrival.

Application

Freeze all types of cells, except human stem cell.

Product Use

This product is intended for *in vitro* use and research use only. Not intended for human or animal diagnostic or therapeutic uses.

General Precautions

1. Clean working space with 70% ethanol or other suitable disinfectant.
2. Clinical samples should be treated as hazardous biological samples.
3. Use aerosol barrier tips. Change tips after each use.
4. Material Safety Data Sheet (MSDS) is available online.

Protocol

Harvest the cells

1. Culture the cells until reaching 80-90% confluency.
2. Gently aspirate and discard spent medium from culture vessel (flask, petri dish, plate, etc.)
3. Add the cell dissociation solution, such as TrypLE, Trypsin, Accutase, Dispase etc. to the vessel (1 ml for each well of 6-well plate) and gently swirl the vessel to cover the monolayer completely.
4. Incubate vessel at 37°C for 5-10 minutes and observe cells periodically under an inverted microscope until the cells begin to round up.
5. Aspirate the Cell Dissociation Solution and add equal volume of culture medium to vessel(s).
6. Use a 1 ml pipette to pipet cells up and down gently a few times in vessel to further break up cell colonies until getting the single cells. (Note: Pipet carefully to reduce foaming).
7. Transfer entire single cell suspension to 15 ml of conical tube and centrifuge the cells at 1000 rpm for 3-5 minutes.
8. Aspirate the supernatant, add appropriate Stemmera™ Universal Cryopreservation Solution to 15 ml of conical tube and resuspend the cells with the pipette. (The total volume of Cryopreservation Solution depends on the cell numbers. Generally, one well of cells were frozen in 1 ml of Cryopreservation Solution.)
9. Transfer 1 ml of cells into one cryovial (around $1-2 \times 10^6$ cells).
10. Label cryovials with cell name, passage number and freezing date.
Put the cryovials in foam box overnight in -80°C and transfer the cryovials to the vapor phase of liquid nitrogen for long-term storage.

Troubleshooting:

- The incubation time at 37°C incubator dependent on the cell's density/cell number.

Warranty and Limited Liability

Stemmera™ will not be liable for any damage caused by misuse, improper handling and storage of the product, non-compliance with precautions and procedures, and damages caused by events occurring after the product is released.

Stemmera Inc

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Related Products

Product	Cat #	Size
Alkaline Phosphatase Detection Kit (Ready-to-Use) - Blue	ST01001	50 tests
Alkaline Phosphatase Detection Kit (Ready-to-Use) - Red	ST01002	50 tests
Human ESCs/iPSCs Serum-/Feeder-free Medium (hStemSFM)	ST02001	500 ml
Human ESCs/iPSCs Xeno-Free Medium (hStemXFM)	ST02002	500 ml
Human Fibroblast (hFIB) Reprogramming Medium	ST02003	500 ml
Fibroblast Growth Medium	ST02005	500 ml
Non-Enzymatic Cell Dissociation Solution (1X)	ST03001	100 ml
Serum-Free Cryopreservation Solution for Human ESCs/iPSCs	ST03002	50 ml
0.2% Gelatin	ST03003	100 ml
0.1% Gelatin	ST03004	100 ml

Technical Support

For more product and technical information, please visit our website at www.stemmera.com.

For further assistance, email your inquiries to our Technical Support team at techsupport@stemmera.com.

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