PRIME-XV FreezIS

Catalog #	Product	Size
91139	PRIME-XV FreezIS	100 mL and 10 mL liquid

Intended Use

PRIME-XV FreezIS solution is recommended for the cryopreservation of most primary cells, including stem/ progenitor cells, and other sensitive cell types. The performance of this medium was assessed on various cell types including T cells derived from human peripheral blood mononuclear cells (PBMCs), and human mesenchymal stem/stromal cells (MSCs). For research use or further manufacturing use only. Not for injection or diagnostic procedures.

Product Description

PRIME-XV FreezIS solution is a complete ready-to-use, animal component free, and protein-free solution containing dimethyl sulfoxide (DMSO). It is designed to prepare and preserve cells during frozen storage (-80˚C to -196˚C), and enhance post-thaw cell viability to recover functionality.

Quality Assurance

All quality control test results are reported on a lot specific Certificate of Analysis (CoA) which is available at www.irvinesci.com or upon request.

Shipping

This product is shipped with cold packs. Upon receipt, store immediately at 2-8°C.

Storage Instructions and Stability

Upon receipt, store PRIME-XV FreezIS at 2-8°C. Unopened solution is stable for 24 months from date of manufacture. PRIME-XV FreezIS should be used within 4 weeks after opening when stored at 2-8°C. Not validated for use beyond the unopened expiry shelf life.

Precautions

For research use or further manufacturing use only. Not for injection or diagnostic procedures. The safety and efficacy of this product in diagnostic or other clinical uses has not been established. This reagent should not be used beyond the expiration date. PRIME-XV FreezIS contains DMSO. Please refer to the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

Directions for Use

The following protocol is recommended for most cells. Further optimization may be required depending upon the cell type.

1. Prepare cell suspension using cell specific protocol (mechanical or enzymatic dissociation) and centrifuge cells as appropriate to obtain a cell pellet.
2. Carefully aspirate supernatant leaving a minimum volume of media covering the cell pellet to reduce dilution of PRIME-XV FreezIS.
3. Add sufficient cold (2-8°C) PRIME-XV FreezIS solution to obtain desired cell density for banking.

   Note: Optimal density may vary depending on cell type.
4. Gently triturate cell pellet to obtain a homogeneous cell suspension.
5. Aliquot appropriate amount into cryovials.
6. Incubate cell suspension at 2-8°C for ~10 minutes.
7. Lower sample temperature to -80°C, and initiate ice nucleation (seeding) within each sample at approximately -5°C during the cooling ramp as indicated below:

   a. Use a controlled rate freezer (-1°C /minute) or similar procedure for most mammalian cell systems.

   b. The freezing device or isopropanol container should be precooled to 2-8°C.

      i. After 15-20 minutes at -80°C, induce nucleation manually by a flick or tap of each cryovial/sample container, and return to -80°C.

   c. When using isopropanol containers, the minimum freezing time is 3 hours at-80°C.
8. Storage of frozen samples:

   a. Place samples into liquid nitrogen temperature (-196°C) for long term storage.

   b. Sample storage at -80°C is only recommended for short-term (up to one week).
9. Thawing procedure: Thaw frozen vial quickly in a 37°C water bath with gentle swirling of the sample until most visible ice has melted. Average thaw time for a 1mL sample in a cryovial is 2-3 minutes.

   CAUTION: DO NOT allow sample to warm above chilled temperatures (0-10°C). Cryovials should be cool to the touch when removed from the water bath.
10. Immediately dilute the thawed cell/ PRIME-XV FreezIS mixture with appropriate culture medium pre-warmed to a temperature of 20-37°C at a dilution ratio of 1:10 (sample to culture media) or greater.
11. Centrifuge and remove the supernatant.
12. Resuspend and transfer cells to appropriate culture medium. If thawing PBMCs, rest in IL-2-containing media overnight prior to cell activation, to allow for post-thaw recovery.

Sample Data

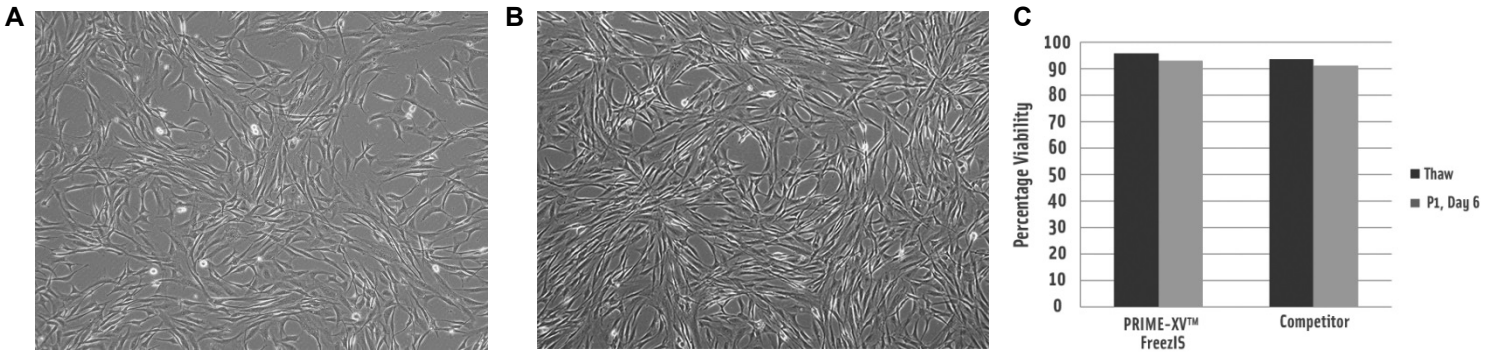

Figure 1. PRIME-XV FreezIS supports cryopreservation and recovery of hMSCs. Human adipose-derived MSCs (A) before and (B) after cryopreservation, day 6 of culture in PRIME-XV MSC Expansion SFM PN# 91135. (C) The Cells had high plating efficiency and viability post-thaw and after 6 days in culture. The results after cryopreservation in PRIME-XV FreezIS were comparable to competitor's medium containing 10% DMSO.

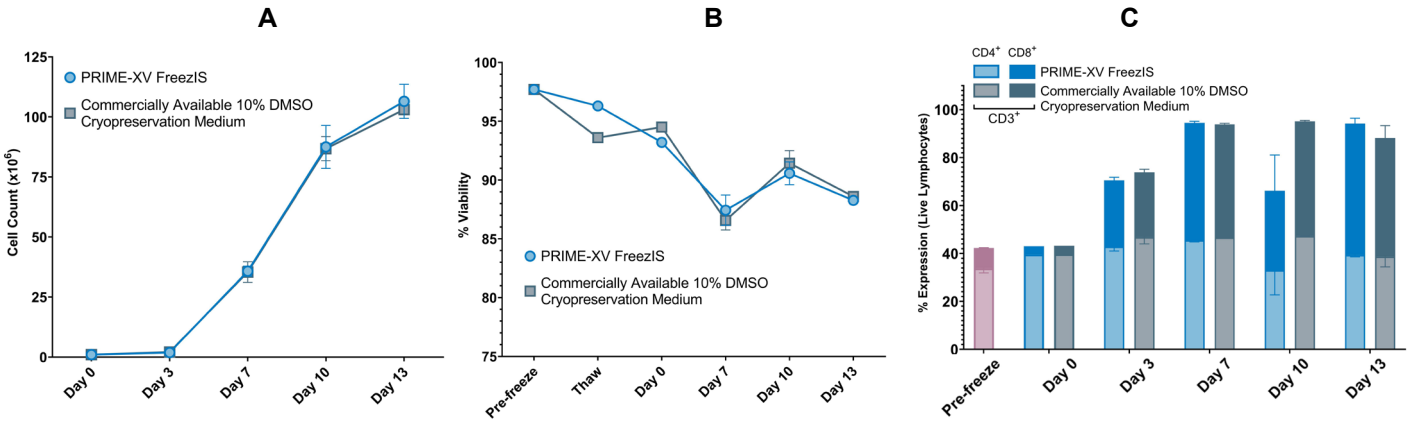

Figure 2. PRIME-XV FreezIS supports cryopreservation and recovery of PBMCs. (A) Fresh human peripheral blood mononuclear cells thawed and cultured for 13 days yielded 100x fold expansion. (B) PBMCs thawed from PRIME-XV FreezIS maintained a higher viability throughout the culture, compared to those thawed from DMSO-containing media. (C) Expanded cells exhibited balanced ratio of CD4 and CD8 cells up to two weeks, post-thaw.

Related Products

Catalog #	Product	Size
91149	PRIME-XV MSC Expansion XSFM	1L and 250 mL liquid
91135	PRIME-XV MSC Expansion SFM	250 mL liquid
91154	PRIME-XV T Cell CDM	1L liquid
91141	PRIME-XV T Cell XSFM	1L liquid
91140	PRIME-XV FreezIS DMSO-Free	10 mL and 100 mL liquid
500-01	CTGrade IL-2 C126S	50 µg, 100 µg, 1 mg
500-07	CTGrade rh IL-7	50 µg, 100 µg, 1 mg
500-08	CTGrade rh IL-15	50 µg, 100 µg, 1 mg
500-09	CTGrade rh IL-21	50 µg, 100 µg, 1 mg

Technical Support

CONTACT US

For more information or assistance contact Customer Service at:

- Email: fisitmrequest@fujifilm.com
- Direct line: +1 800 577 6097

WEBSITE RESOURCES

Visit the website at www.irvinesci.com for technical resources and information including:

- Safety Data Sheets (SDS)
- Certificate of Analysis (CoA) (when available)
- FAQs
- Product literature
- Complete list of offices and contact information by country

FUJIFILM Irvine Scientific, Inc.
2511 Daimler Street, Santa Ana, California 92705-5588 USA
Telephone: 1 949 261 7800 • 1 800 437 5706
Fax: 1 949 261 6522 • www.irvinesci.com

Effective Date: 28 Nov 2022