



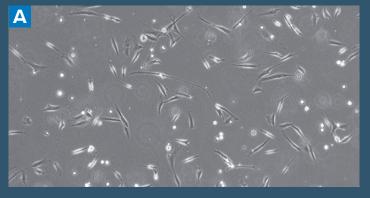
# **PRIME-XV** FreezIS

Protein-free, animal component-free, chemically defined cryopreservation solution

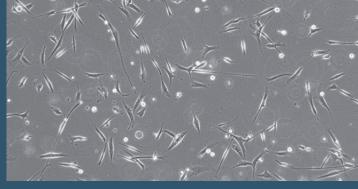
- Enables preservation for short-term storage at -80°C and long-term storage in liquid nitrogen to -196°C
- · High post-thaw viability and growth
- Maintains cell surface marker expression of mesenchymal stem cells (MSCs) and T cells post-thaw
- Complete, ready-to-use medium
- Contains DMSO in the formulation



## Maintains high post-thaw viability of MSCs

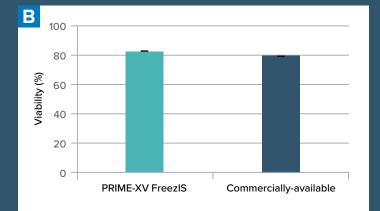




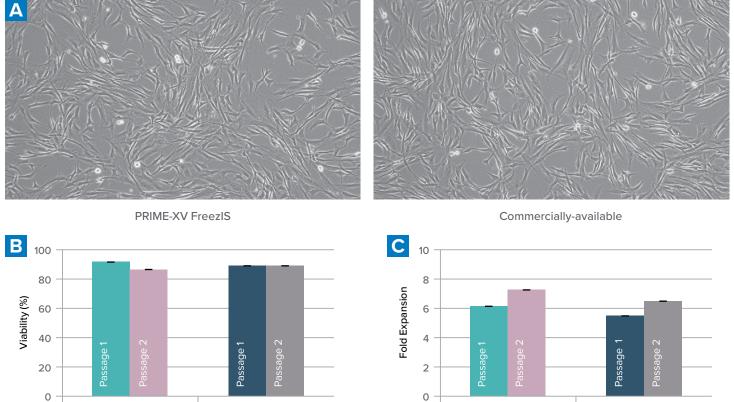


Commercially-available

Figure 1. PRIME-XV FreezIS supports high post-thaw viability of MSCs. Human adipose-derived mesenchymal stem cells (MSCs) had high plating efficiency (A) and viability (B) 24 hours post-thaw after cryopreservation in PRIME-XV FreezIS compared to a commercially-available cryopreservation solution. Images were taken at 10X magnification.



### Supports high viability and marker expression over multiple passages



PRIME-XV FreezIS Commercially-available

Figure 2. PRIME-XV FreezIS supports high viability and expansion of MSCs. Human-adipose derived MSCs showed good morphology and growth (A), high percent viability (B), and higher viable cell count (C) over 2 passages after cryopreservation in PRIME-XV FreezIS compared to a commercially-available cryopreservation solution. Images were taken at 10X magnification.

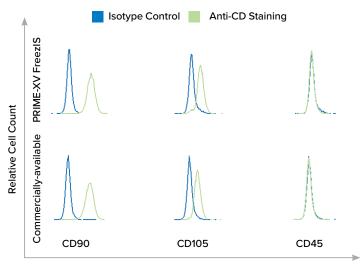


Figure 3. PRIME-XV FreezIS maintains desired marker

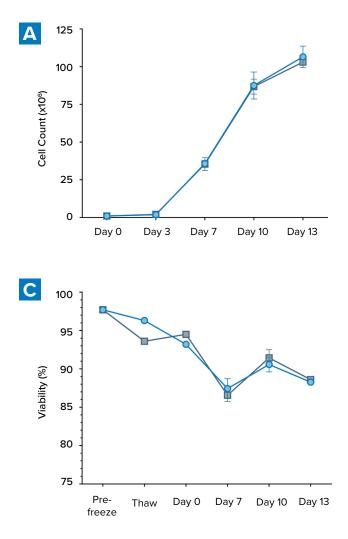
**PRIME-XV** FreezIS

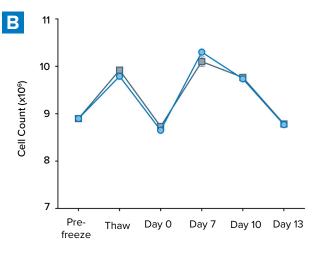
Commercially-available

**expression.** Human adipose-derived MSCs were cultured for 2 passages post-thaw after cryopreservation in PRIME-XV FreezIS and a commercially-available cryopreservation solution. Analysis by flow cytometry showed MSCs were positive for CD90 and CD105 cell surface markers but lacked CD45 expression.

Fluorescence Intensity

#### Maintains PBMC viability and cell recovery





PRIME-XV FreezIS

Commercially-available 10% DMSO Cryopreservation Medium

#### Figure 4. PRIME-XV FreezIS supports

**cryopreservation and recovery of PBMCs.** (A) Fresh human peripheral blood mononuclear cells thawed and cultured for 13 days yielded 100-fold expansion. (B) PBMCs thawed from PRIME-XV FreezIS showed a slightly higher viability at thaw and maintained a viability above 85% over the 13 days in culture. (C) Cell diameter increases post-thaw as the cells recover from the cryopreservation, returning to baseline 24 hours later. Cell diameter is highest at the peak of the exponential growth phase around day 7 and returns to baseline again at the end of expansion.

- FDA, Federal, and State registered cGMP-compliant manufacture
- EN ISO 13485:2016 certified
- MDSAP certified
- Extensive QC testing including functionality, sterility (USP <71>), endotoxin (USP <85>), and mycoplasma (USP <63>)
- Drug Master Files (DMFs) filed with the FDA – available upon request

To discuss your requirements, contact us at getinfo@irvinesci.com or visit our website at www.irvinesci.com/contact-us.

# Ordering Information

| Product Description | Catalog # | Size*           | Additional Information  |
|---------------------|-----------|-----------------|---|
| PRIME-XV FreezIS    | 91139     | 10 mL<br>100 mL | Protein-free, chemically defined, animal component-free cryopreservation medium. Contains DMSO. |

## **Related Products**

| Product Description                    | Catalog # | Size*                   | Additional Information   |
|--|-----------|-------------------------|--|
| PRIME-XV FreezIS DMSO-Free             | 91140     | 10 mL<br>100 mL         | Protein-free, chemically defined, animal component-free cryopreservation medium. Does not contain DMSO.  |
| PRIME-XV MSC Expansion XSFM            | 91149     | 250 mL<br>1 L           | Xeno-free, serum-free medium for MSC expansion   |
| PRIME-XV MSC Expansion SFM             | 91135     | 250 mL<br>1 L           | Serum-free medium for MSC expansion  |
| PRIME-XV T Cell Expansion XSFM         | 91141     | 1 L                     | Xeno-free, serum-free T cell medium. Contains Gentamicin.  |
| PRIME-XV T Cell CDM                    | 91154     | 1 L                     | Chemically defined, animal component-free formula.<br>Does not contain antibiotics or phenol red.  |
| PRIME-XV Hematopoietic Cell Basal XSFM | 91211     | 500 mL                  | Xeno-free, serum-free HSC basal medium   |
| CTGrade rh IL-2 <sub>C126s</sub>       | 500-01    | 50 μg<br>100 μg<br>1 mg | Manufactured following cGMP practices in a facility that<br>does not use or process beta-lactam containing materials,<br>no histidine tags, and 0.2 micron filtered. No animal- or<br>human-derived materials were used during manufacturing<br>or as ingredients. |
| CTGrade rh IL-7                        | 500-07    | 50 μg<br>100 μg<br>1 mg | Manufactured following cGMP practices in a facility that<br>does not use or process beta-lactam containing materials,<br>no histidine tags, and 0.2 micron filtered. No animal- or<br>human-derived materials were used during manufacturing<br>or as ingredients. |
| CTGrade rh IL-15                       | 500-08    | 50 μg<br>100 μg<br>1 mg | Manufactured following cGMP practices in a facility that<br>does not use or process beta-lactam containing materials,<br>no histidine tags, and 0.2 micron filtered. No animal- or<br>human-derived materials were used during manufacturing<br>or as ingredients. |
| CTGrade rh IL-21                       | 500-09    | 50 μg<br>100 μg<br>1 mg | Manufactured following cGMP practices in a facility that<br>does not use or process beta-lactam containing materials,<br>no histidine tags, and 0.2 micron filtered. No animal- or<br>human-derived materials were used during manufacturing<br>or as ingredients. |

\*Custom sizes and packaging available upon request.



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