MSC Cryopreservation Solution

5% DMSO

Product Description:

A cryopreservation medium specifically optimized for MSC storage, featuring **USP-grade** components (5% DMSO). Manufactured under cGMP conditions with a chemically defined formulation, this ready-to-use solution eliminates the need for programmed cooling, ensures >90% post-thaw viability, and supports long-term storage at -80°C or in liquid nitrogen.

Application：

Specifically optimized for cryopreserving mesenchymal stem cells (MSCs) derived from multiple tissue sources.

Features:

- Specialized for MSC cryopreservation
- Chemically defined, **USP-grade composition**
- ≥90% post-thaw cell recovery
- Ready-to-use format with minimal handling steps
- Suitable for long-term storage at -80℃ or in liquid nitrogen
- No programmed cooling required when transferring from -80°C to liquid nitrogen

Product information:

F108-20: 20ml

F108-100: 100ml

Shelf Life: 3 years

Storage Conditions:

2-8°C, light protection recommended.

**Viability data obtained via trypan blue exclusion (typical range: 90-98% recovery).*

Cryopreserved Cell Line	Store condition/time	Post-Thaw Viability
MSCs (Human Adipose-Derived)	-80 ℃, >18 months	>90% (93%)
MSCs (Immortalized hAD-MSC)	-80 ℃, >18 months	>90% (96%)
MSCs (Human Umbilical Cord)	-80 ℃, >18 months	>90% (98%)
MSCs (Human Amniotic)	-80 ℃, >18 months	>90% (97%)

**Note: Post-thaw viability: >90% (typical range: 90-98%) as measured by trypan blue exclusion.*

Instruction for use

I. Cell Cryopreservation:

1.Harvest cells in logarithmic growth phase. Wash once with 1X PBS or appropriate cell wash buffer.

2.Centrifuge to remove supernatant and perform cell counting.

3.Slowly add cryopreservation medium to achieve 1×10^6–5×10^6cells/ml. Gently resuspend cells and transfer to cryovials.

4. Place cryovials in a suitable freezing container (e.g., isopropanol-containing cryobox recommended). Incubate at 4°C for 15 minutes. *→ *Critical: Ensures DMSO penetration into cells. Do not skip this step.*

5. Transfer to -80°C freezer for long-term storage.

*→ *For liquid nitrogen transfer, store at -80° C for ≥24 hours first.**

II. Cell Thawing:

1. Preheat 10 ml complete MSC medium at 37°C water bath for 15–20 minutes.

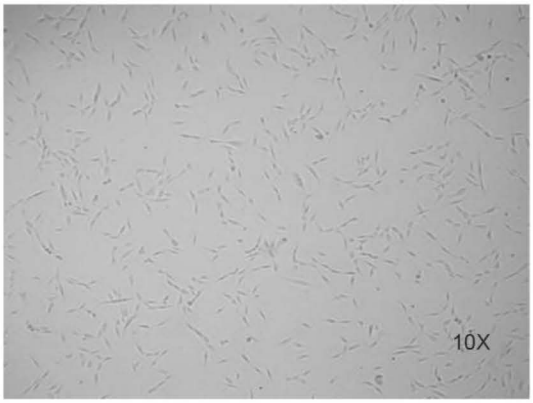
2. Retrieve cryovial from -80°C/liquid nitrogen. Thaw in 37°C water bath with gentle agitation until fully melted (no ice crystals), ~2 minutes.

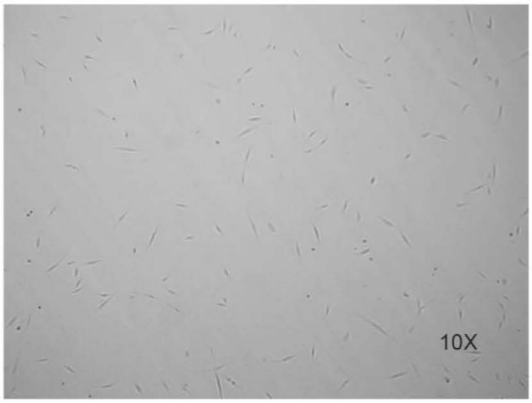
3. Transfer cells to preheated complete medium. Centrifuge at 1,000–1,200 rpm for 5 minutes.

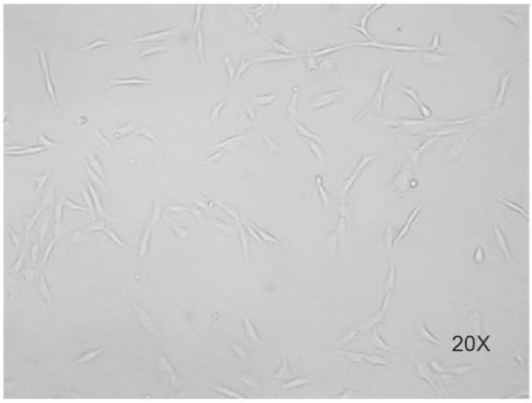
4. Discard supernatant. Resuspend in fresh preheated complete medium.

5. Proceed with standard MSC culture protocols.

**Post-Thaw Cell Adhesion Examples (Reference):*







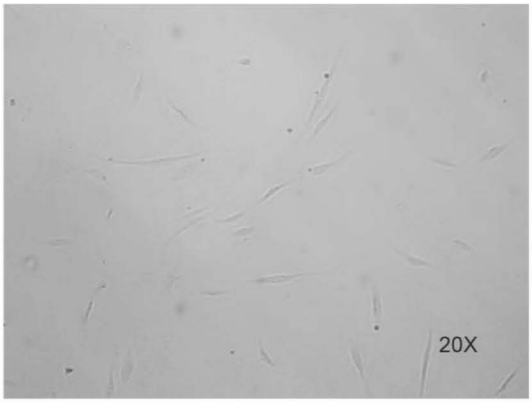


Image A: Adipose-Derived MSCs.
Cryopreserved in medium for 18 months (-80°C)
48 hours post-thaw.
Seeding density: 5×10^3 cells/cm^2

Image B: Bone Marrow-Derived MSCs
Cryopreserved in medium for 6 months (-80°C)
24 hours post-thaw.
Seeding density: 3×10^3 cells/cm^2