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Clonetics™ & Poietics™ Primary Cells

Instructions for Cryopreservation

Clonetics™ Cell Cryopreservation Media Suggestions

Cell Type	Base Media	DMSO	FBS
General Clonetics™ Cell (see exceptions below)	80% Standard Growth Media	10% DMSO	10% FBS
Articular Chondrocytes (NHAC-kn)	80% CGM without FBS	10% DMSO	10% FBS
Melanocytes (NHEM)	60% MGM-4	10% DMSO	30% FBS
Osteoblasts (NHOst)	80% OGM without FBS	10% DMSO	10% FBS
Skeletal Muscle Cells (SkMC)	70% SkGM	10% DMSO	20% FBS
Skeletal Muscle Myoblasts (HSMM)	70% SkGM-2	10% DMSO	20% FBS

Poietics™ Cell Cryopreservation Media Suggestions

Cell Type	Base Media	DMSO	FBS/HSA	Hydroxyethyl Starch
General Poietics™ Cell (see exceptions below)	86.5% IMDM	7.5% DMSO	4% HSA (w/v)*	2% Hydroxyethyl starch (w/v)**
Adipose Derived Stem Cells (ADSC)	90% ADSC-GM	10% DMSO	No FBS/HSA	No Hydroxyethyl starch
Human Dental Pulp Stem Cells (DPSC)	92.5% DPSC-GM	7.5% DMSO	No FBS/HSA	No Hydroxyethyl starch
Human Mesenchymal Stem Cells (hMSC)	85% MSCBM	10% DMSO	5% HSA (w/v)*	No Hydroxyethyl starch
Preadipoytes (HPrAd)	80% EGM-2MV	10% DMSO	10% FBS	No Hydroxyethyl starch
Rat Mesenchymal Stem Cells (rMSC)	No Base Media	10% DMSO	90% FBS	No Hydroxyethyl starch

**If Human Serum Albumin (HSA) is not available, Bovine Serum Albumin (BSA) can be used at an equal w/v. If HSA and BSA are not available, Fetal Bovine Serum (FBS) may be used at 16% for General Poietics™ Cell or 20% for hMSC by reducing the amount of the base media appropriately.*

***If Hydroxyethyl starch is not available, the component can be omitted by increasing the amount of IMDM to 88.5%*

NOTE: Cryopreservation may compromise cell quality and performance. **Lonza CANNOT guarantee performance of Clonetics™ & Poietics™ Cells that have been cryopreserved outside of Lonza.** To avoid loss of cells and forfeiture of your warranty, we recommend keeping cells in continuous culture without cryopreservation.

General Instructions

NOTE: These instructions do not apply to hepatocytes, NHNP, InEpC, pancreatic islets, sertoli cells, and all animal cells (with the exception of the rMSC).

1. Prepare cryopreservation media per the table above
2. Sterile filter cryopreservation media using a 0.2 micron filter
3. Harvest and centrifuge cells to collect cells into a pellet
4. Resuspend cells in cold cryopreservation media at 500,000 to 2,000,000 cells per ml.

NOTE: Work Quickly! Once exposed to the DMSO, cells become very fragile.

5. Pipet aliquots (1 ml each) into freezing vials or ampoules and seal.
6. Insulate aliquots with Styrofoam or propanol freezing canister.
7. Store cells at -70℃ overnight.
8. Within 12 to 24 hours, place cells in liquid nitrogen (-200℃) for long-term storage. Cells will be compromised by storage in -70℃.