LEADBANKER™ Cryopreservation Medium (DMSO)

Cat. No. LDG0002RM | Package 100 mL

PRODUCT OVERVIEW

Description

LEADBANKER™ Cryopreservation Medium (DMSO) is a ready-to-use, serum-free, and protein-free cryopreservation medium designed to support high post-thaw cell viability and recovery. Its defined formulation helps reduce variability commonly associated with serum- or protein-containing cryopreservation media and supports consistent cryopreservation conditions for cell samples.

Storage and Stability

LEADBANKER™ Cryopreservation Medium (DMSO) is shipped with polar packs. Upon receipt, store immediately at 2–8°C.

Quality Control

Sterility	Sterile
Mycoplasma	Not detected
Endotoxin	<5 EU/mL
pH	7.2–8.0, at room temperature

CRYOPRESERVATION PROCEDURE

01 Cell preparation

Harvest cells during the logarithmic (exponential) growth phase to promote high viability and post-thaw recovery.

02 Cell collection

Count the cells and centrifuge the cell suspension to remove the spent culture medium. Handle the cell pellet gently to maintain cell integrity.

03 Resuspension

Resuspend the cell pellet in pre-chilled (2–8°C) LEADBANKER™ Cryopreservation Medium (DMSO) to a final density of 0.5 × 10^6 to 5 × 10^6 cells/mL. Cell density may be adjusted according to the specific cell line.

NOTE Using pre-chilled cryopreservation medium helps minimize the cytotoxic effects of cryoprotectants.

04 Aliquot

Promptly aliquot the cell suspension into labeled cryovials. Complete this step as quickly as possible to reduce the duration of cell exposure to cryoprotectants at room temperature.

05 Controlled freezing

Place the vials in a controlled-rate freezing container to achieve a cooling rate of approximately −1°C/min. Store the container at −80°C overnight.

06 Long-term storage

Transfer the vials to liquid nitrogen storage (−196°C) for long-term storage.

THAWING PROCEDURE

01 Thaw rapidly

Remove the cryovial from liquid nitrogen and immediately thaw it in a 37°C water bath with gentle agitation. Thawing should be completed within 1–2 minutes.

02 Dilute gently

Slowly transfer the thawed cell suspension into a centrifuge tube containing ten volumes of pre-warmed complete culture medium (e.g., add 1 mL of thawed cell suspension to 10 mL of medium), gently mixing to minimize osmotic shock.

03 Centrifuge

Centrifuge the diluted suspension at 300–400 × g for 3–5 minutes to pellet the cells and remove residual cryopreservation medium.

04 Resuspend and seed

Carefully aspirate the supernatant. Gently resuspend the cell pellet in fresh complete medium and seed the cells into appropriate culture vessels. Incubate at 37°C with 5% CO_2.

05 Medium replacement (recommended)

Replace the culture medium with fresh complete medium 12–24 hours post-seeding.

NOTE This step helps remove residual cryoprotectants and cell debris, supporting post-thaw cell recovery and growth.

PERFORMANCE TESTING

Cell line / Cell Type	Post-thaw Viability	Post-thaw Recovery
CHO-K1	>90%	>90%
Jurkat	>85%	>90%
THP-1	>85%	>90%
Raji	>85%	>90%
K562	>85%	>90%
UC-MSC	>90%	>90%
Myeloma	>75%	>90%

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