Freeze Drying

Freeze-drying, or lyophilization, is necessary due to the degradation and instability of certain biomolecules when stored in aqueous solutions. These ready-to-use reagents assist with every step of the process.

REAGENTS

MICROBIAL FREEZE DRYING BUFFER
SKU - MFDB 500-06

A proprietary formulation of plant protein and a carbohydrate lyoprotectant. Free of animal products/proteins, viability of bacteria freeze-dried with this reagent far exceeds the performance of sucrose or skim milk based methods over an extended period of time.

LYOPHILIZATION REAGENT (2X)
SKU - LR2X 500-02

A lyoprotectant and matrix-forming excipient that expedites lyophilization and provides excellent stability for proteins.

FREEZE DRYING INDICATOR
SKU - LRFI 500-04

This colorimetric indicator can be used in conjunction with samples undergoing the freeze-drying process in Lyophilization Reagent (2X) to confirm when freeze-drying is complete.

KEY FEATURES

MICROBIAL FREEZE DRYING BUFFER

- Contains no animal products or proteins
- More cost effective than BSA formulations
- 24-month shelf life when stored under sterile conditions at room temperature

LYOPHILIZATION REAGENT (2X)

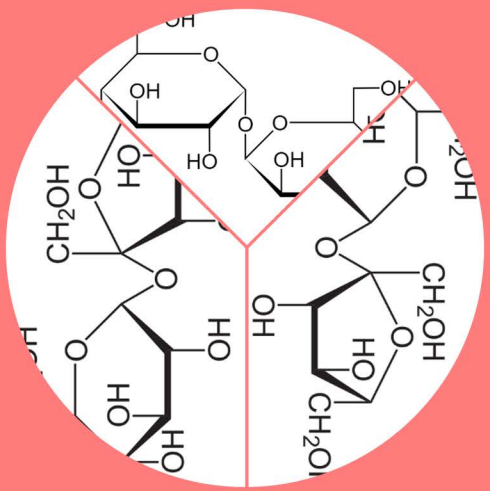
- Expedites primary drying phase
- Ideal for proteins

FREEZE DRYING INDICATOR

- Changing color provides real-time indication of sample dryness

OPS Diagnostics' products are intended for research purposes only; not for clinical use

OPS DIAGNOSTICS
opsdiagnostics.com
info@opsdx.com
PO Box 348
Lebanon, NJ 08833



KEY FEATURES

TREHALOSE
- Effectively protects proteins and other biomolecules
- Prevents denaturation during freeze-drying

SUCROSE
- The traditional lyoprotectant
- Cost effective alternative to Trehalose

MANNITOL
- USP Grade
- Popular in pharmaceutical applications
- Great for nucleic acid and protein preservation

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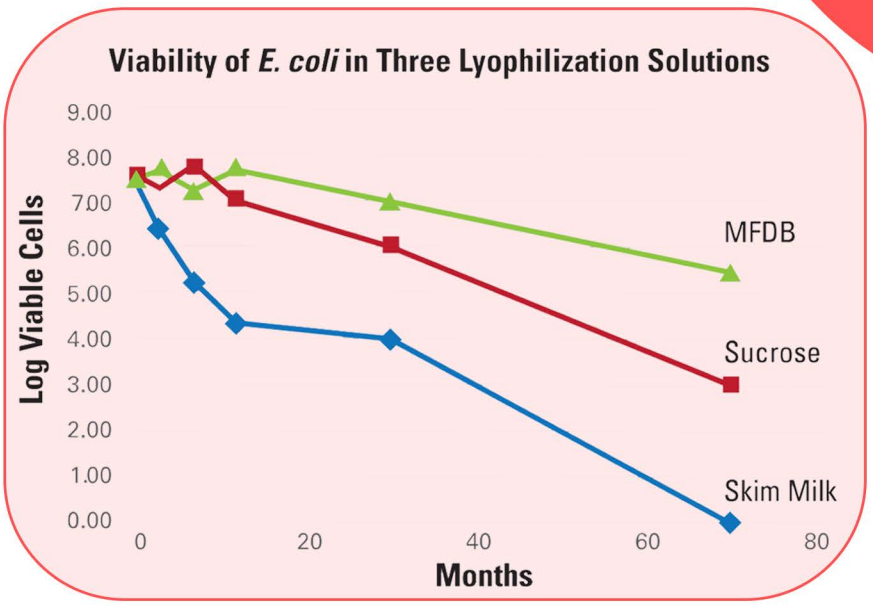


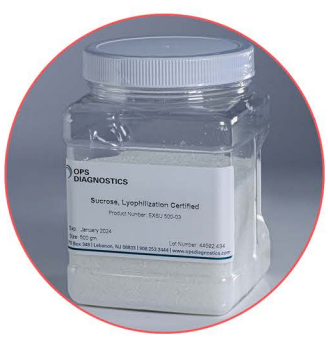
VIABILITY OF *E. COLI* FOLLOWING LYOPHILIZATION USING THREE DIFFERENT METHODS

Microbial Freeze Drying Buffer, sucrose, and skim milk are all capable of protecting *E. coli* following lyophilization. Results in the graph demonstrate that Microbial Freeze Drying Buffer greatly improves viability over skim milk and sucrose.

EXCIPIENTS

TREHALOSE
SKU - EXTR 500-05

A non-anomeric disaccharide and useful lyoprotectant for freeze-drying.



SUCROSE
SKU - EXSU 500-03

A lyoprotectant that maintains integrity of biological systems during lyophilization and a less expensive alternative to Trehalose.

MANNITOL
SKU - EXMN 500-01

A sugar alcohol that forms a matrix in solution, preventing sample collapse by allowing water to escape during lyophilization. Extremely effective in preserving proteins and biomolecules.