OPS DIAGNOSTICS
LABORATORY PRODUCTS FOR SAMPLE PREPARATION

Lyophilization Reagent
2X Concentrate - Sterile Filtered

Product Number: LR2X 500-02

500 ml

For laboratory use only. Not for drug, household or other uses.

Warning! Harmful by inhalation, in contact with skin and if swallowed.

Related Products:

Microbial Freeze Drying Buffer
Product No. MFDB 500-06

Freeze Drying Indicator
Product No. LRFI 500-04

The Lyophilization Reagent is a 2X solution of mannitol/lyoprotectant that simplifies the freeze drying process. The solution can be used full strength or diluted 1:1 with samples prior to freeze drying. This product is filter sterilized and was packaged aseptically. Use aseptic technique when removing reagent. Store solution at room temperature.

Two options are available for using Lyophilization Reagent.

Option 1: Use size exclusion chromatography to perform a buffer exchange on the sample to be freeze dried. Procedures for the buffer exchange are specific to the column and filtration medium employed. Freeze drying is performed following the exchange. Note that the Lyophilization Reagent is not a buffer and any buffer capacity and ionic strength requirements first require modification of the 2X concentrate.

Option 2: Mix equal volumes of sample solution and Lyophilization Reagent. Proceed to freeze dry as described below. Sample should not be suspended in phosphate buffers when using Lyophilization Reagents. Phosphates may cause the matrix to collapse during freeze drying.

The freeze drying parameters must be determined for each freeze dryer. However the reagents are optimized to freeze drying on the following cycle.

Freezing:	30 minutes from ambient to -40ºC, hold for 1 hr.
Primary Drying:	Increase temperature to -10ºC, hold for 16 hours (larger volumes may require longer drying times).
Secondary Drying:	Increase temperature to 20ºC and hold for 2 hr.

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