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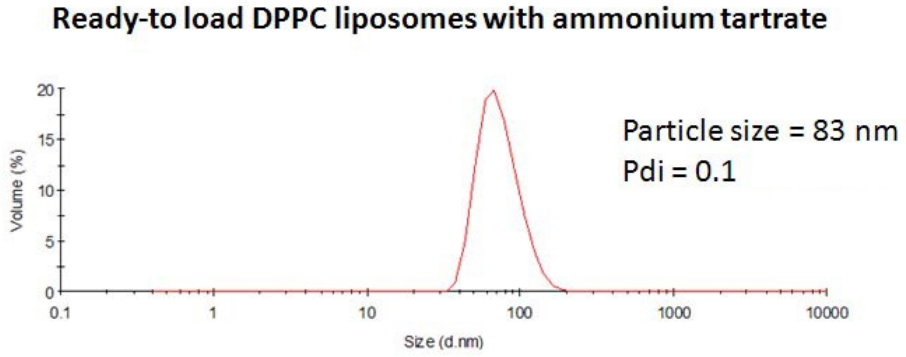
INSTRUCTIONS

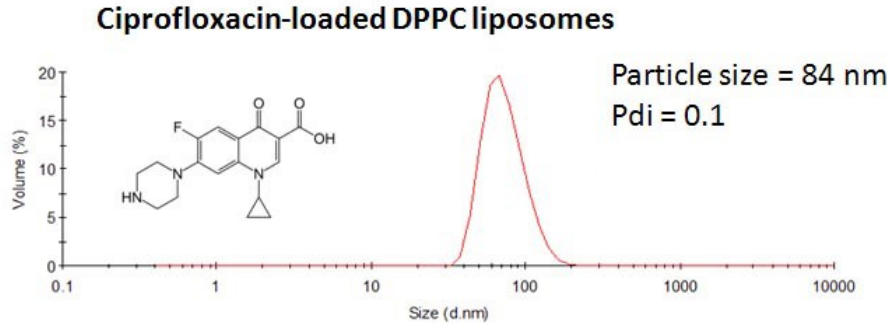
ProFoldin
Ready-to-load DPPC Liposomes with Ammonium Tartrate

CATALOG NUMBER **DPC100AT**

INTRODUCTION

Liposomal drug formulations provide great opportunities of improving the drug efficacy and toxicity profiles. Drug molecules with amine groups such as doxorubicin and ciprofloxacin, etc. can be loaded by ammonium-based pH gradient. The **Ready-to-load DPPC Liposomes with Ammonium Tartrate (Catalog number DPC100AT)** are high quality non-PEGylated liposomes that are ready to load drug molecules containing amine groups. The drug loading process is completed in about 3 hours after mixing the drug with the liposomes. The composition of the liposomes is DPPC and cholesterol in the weight ratio of 1.9:1. The total lipid concentration is 10 mg/ml. The liposomes are encapsulated with ammonium tartrate for drug remote loading. The average size of liposomes is about 80 nm with poly dispersity index (dpi) of 0.1.





The **Ready-to-load DPPC Liposomes with Ammonium Tartrate (Catalog number DPC100AT)** includes 10 ml liposomes with 10 mg/ml lipid concentration. The mass ratio of lipids is DPPC: cholesterol = 1.9:1. The concentration of ammonium tartrate encapsulated within

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the liposomes for drug loading is 300 mM. The buffer is 10 mM histidine, pH 6.5, 9.2 % sucrose. Liposomes are stored in a 2°C to 8°C refrigerator. DO NOT freeze liposomes.

DRUG LOADING PROTOCOL

Drug molecules containing at least one amine group are potentially loaded into the liposomes. The drug loading capacity depends on the property of the drug molecules. The typical drug to lipids ratio is from 1:5 to 1:20.

1. Drug loading

Mix the drug solution and the liposome and incubate the mixture in a 48°C water bather for 3 hours. Save the loaded liposomes at 2 to 8°C.

2. Drug encapsulation measurement

The yield of drug encapsulation is measured by a spin-column method using the **Liposome Drug Encapsulation Assay kit (Catalog number LDE10).** A volume of 50 µl of sample was loaded on the spin column and eluted with 100 µl of the elution buffer. The encapsulated dug is eluted and the non-encapsulated drug stays on the column. For detailed protocol, please see the Instruction of the **Liposome Drug Encapsulation Assay kit (Catalog number LDE10).**

RELATED PRODUCTS

Liposome products:

SLP20	Spin-columns for Liposome Purification
LDE10	Liposome Drug Encapsulation Assay Kit
LDD05	Liposome Drug Dissolution Assay Kit
LIP1000	MicroGram Lipid Assay Kit
SPS20	Liposome Plasma Stability Test Kit
DPPC002CP	DPPC Liposomal Ciprofloxacin- 2 mg
PHPC002CP	PEGylated HSPC Liposomal Ciprofloxacin- 2 mg
PHPC002DX	PEGylated Liposomal Doxorubicin- 2 mg
DPC001AO	Liposomal Acridine Orange Dye
DPC001RG	Liposomal Rhodamine G Dye
DPC001FL	Liposomal Fluorescein Dye

Nanodisc products:

SMA31-100MG	Styrene - Maleic Acid Copolymer 3:1 Free Acid- 100 mg
SMA31S-100MG	Styrene - Maleic Acid Copolymer 3:1 Sodium Salt- 100 mg

Detergent and lipid products:

DAK1000	Detergent assay kit
LIP1000	MicroGram Lipid Assay Kit

For more information of liposome and nanodisc products, please visit our website at www.profoldin.com.