ProFoldin
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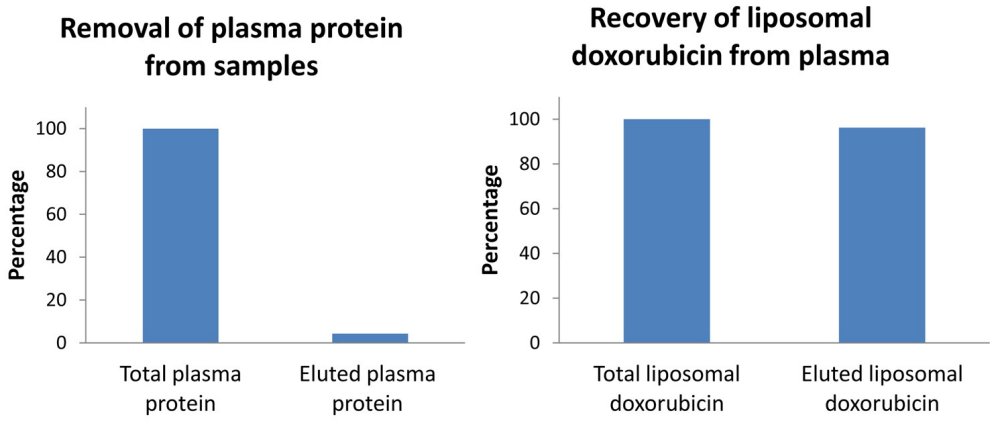
INSTRUCTIONS

ProFoldin
Liposome Plasma Stability Test Kit

CATALOG NUMBER **SPS20**

INTRODUCTION

The Liposome Human Plasma Stability Test Kit (Catalog number SPS20) is designed for study stability of liposomal drugs in human or animal plasma or serum. Ready-to-use spin columns are employed for separation of liposomal drugs from non-encapsulated drugs and drugs that binds plasma proteins. After a quick spin-column process, more than 95 % of plasma proteins together with the free drugs stay on the column. The intact liposomal drugs are in the elute. For example, the recovery yield of the intact liposomal doxorubicin was 96 % after incubation of the liposomal drug with human plasma at 37°C for 2 hours.



The Liposome Human Plasma Stability Test Kit (Catalog number SPS20) includes 20 pre-packed spin columns for analysis of 20 samples.

PROTOCOL

1. Column preparation

(1) Remove the caps of 1.5-ml Eppendorf tubes and use them as receiver tubes. Remove the bottom tip and the cap of each spin column and insert the column into a receiving tube.

(2) Spin the columns at 1000 rpm using a benchtop Eppendorf centrifuge for 1 min and discard the elute.

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(3) Spin the columns at 1000 rpm for 4 min and change to a clean receiving tube.

2. Sample preparation

(1) Filtrate human plasma through a 0.22 µm syringe filter (low protein binding filter, Pall Scientific, PN 4902).

(2) Mix 100 µl of liposome and 100 µl of plasma and incubate at 37 °C for 2 to 24 hr.

(3) Mix 100 µl of liposome and 100 µl of buffer and keep it on ice as a control.

3. Separation of the intact liposomal drug from the free and protein-bound drugs

(1) Load 75 µl of the plasma-treated liposome sample or control onto each column.

(2) Spin the column at 1000 rpm for 4 min. Collect the elute. Discard the column.

4. Analysis of Liposome stability in plasma

(1) Use a proper method to measure the drug concentrations in the elute of the plasma-treated liposome sample (Cp) and the elute of the control (Cc).

(2) Analyze the stability of the liposome in plasma:
Recovery yield of intact liposome in plasma (%) = Cp x 100 % / Cc

Related products:

SLP20	Spin-columns for Liposome Purification
LDE10	Liposome Drug Encapsulation Assay Kit
LDD05	Liposome Drug Dissolution Assay Kit
LIP1000	MicroGram Lipid Assay Kit
PHPC200AS	Ready-to-load PEGylated HSPC Liposomes with Ammonium Sulfate
DPC200AT	Ready-to-load DPPC Liposomes with Ammonium Tartrate
DPC001AO	Liposomal Acridine Orange Dye
DPC001RG	Liposomal Rhodamine G Dye
DPC001RG	Liposomal Fluorescein Dye
DPC001FL	PEGylated Liposomal Acridine Orange Dye
PHC001RB	PEGylated Liposomal Rhodamine B Dye
PHC001AO	PEGylated Liposomal Rhodamine B Dye
DPC002MG	Liposomal Magnesium
DPC002CA	Liposomal Calcium

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