Lipofectamine® Reagent

Package Contents

Catalog Number	Size
▪ 18324-010	0.3 mL
▪ 18324-012	1.0 mL
▪ 18324-020	4 × 1 mL

Storage Conditions

Store at 4°C (do not freeze).

Required Materials

- Plasmid DNA (0.5–5 µg/µL stock)
- Opti-MEM® Reduced Serum Medium
- Eppendorf tubes

Timing

Preparation: 10 minutes
Incubation: 5 minutes
Final Incubation: 1–3 days

Selection Guide

Lipofectamine® Reagents
Go online to view related products.

Product Description

- Lipofectamine® Reagent is a proprietary formulation for transfecting nucleic acids into a wide range of eukaryotic cells.

Important Guidelines

- DNA-Lipofectamine® complexes must be made in serum-free medium such as Opti-MEM® Reduced Serum Medium and can be added directly to cells in culture medium, in the presence or absence of serum/antibiotic.
- It is not necessary to remove complexes or change/add medium after transfection.
- The amount of Lipofectamine® Reagent required for successful transfection varies depending on the cell type and passage number. Start any new transfection by testing the recommended four concentrations of Lipofectamine® Reagent to determine an optimum amount.

Online Resources

Visit our product page for additional information and protocols. For support, visit www.lifetechnologies.com/support.

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Print Options

Protocol Outline

A. Plate cells so they will be 70–90% confluent at the time of transfection.
B. Prepare plasmid DNA-lipid complexes.
C. Add DNA-lipid complexes to cells.

Lipofectamine® DNA Transfection Reagent Protocol

See page 2 to view a typical plasmid transfection procedure.

Transfection Amounts

Component	96-well	24-well	6-well
DNA per well	100 ng	500 ng	2500 ng
PLUS™ Reagent (Optional)	0.1 µL	0.5 µL	2.5 µL
Lipofectamine® Reagent per well	0.2–0.5 µL	1–2.5 µL	5–12.5 µL

Scaling Up or Down Transfections

Limited Product Warranty and Disclaimer Details

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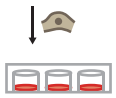
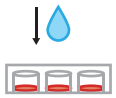
Lipofectamine® DNA Transfection Reagent Protocol

Transfect cells according to the following table. Use the indicated volume of DNA and PLUS™ Reagent with each of the four volumes of Lipofectamine® Reagent. **Each reaction mix is sufficient for triplicate (96-well), duplicate (24-well), and single well (6-well) transfections, and accounts for pipetting variations.** For even less toxicity, reduce the amount of DNA-lipid complex to the cells, or reduce the amount of DNA used to make complexes.

Timeline		Steps
Day 0	1 	**Seed cells to be 70-90% confluent at transfection**
	2 	**Dilute Lipofectamine® Reagent in Opti-MEM® Medium**
Day 1	3 	**Dilute DNA in Opti-MEM® Medium, then add PLUS™ Reagent**
	4 	**Add diluted DNA to diluted Lipofectamine® Reagent (1:1 ratio)**
	5 	**Incubate**
	6 	**Add DNA-lipid complex to cells**
Day 2–4	7 	**Visualize/analyze transfected cells**

Procedure Details

Component	96-well	24-well	6-well
Adherent cells	1–4 × 10^4	0.5–2 × 10^5	0.25–1 × 10^6
Opti-MEM® Medium	25 µL × 4	50 µL × 4	150 µL × 4
Lipofectamine® Reagent	1, 1.5, 2, 2.5 µL	2, 3, 4, 5 µL	6, 9, 12, 15 µL
Opti-MEM® Medium	125 µL	250 µL	700 µL
DNA (0.5–5 µg/µL)	2.5 µg	5 µg	14 µg
PLUS™ Reagent (Optional)	2.5 µL	5 µL	14 µL
Diluted DNA (with PLUS™ Reagent) Total	25 µL	50 µL	150 µL
Diluted Lipofectamine® Reagent	25 µL	50 µL	150 µL

Incubate for 5 minutes at room temperature.

Component	96-well	24-well	6-well
DNA-lipid complex per well	10 µL	50 µL	250 µL
Final DNA used per well	100 ng	500 ng	2500 ng
Final Lipofectamine® Reagent used per well	0.2–0.5 µL	1.0–2.5 µL	5.0–12.5 µL

Incubate cells for 1–3 days at 37°C. Then, analyze transfected cells.