





Document Part No. 100022234 Publication No. MAN0009872 Rev C.0


Package Contents	Catalog Numbers	Size:
	L3000001	0.1 mL
	L3000008	0.75 mL
	L3000015	1.5 mL
	L3000075	5 × 1.5 mL
	L3000150	15 mL

Storage Conditions	
	<ul style="list-style-type: none"> <li>Store at 4°C (do not freeze).</li> </ul>

Required Materials	
	<ul style="list-style-type: none"> <li>Plasmid DNA (0.5–5 µg/µL stock)</li> <li>Opti-MEM™ Reduced Serum Medium</li> <li>Microcentrifuge tubes</li> </ul>

Timing	
	Preparation: 10 minutes Incubation: 10–15 minutes Final Incubation: 1–3 days

Selection Guide	
	Lipofectamine™ Reagents Go online to view related products.

Product Description	
	<ul style="list-style-type: none"> <li>Lipofectamine™ 3000 Reagent is a proprietary formulation for transfecting nucleic acids into a wide range of eukaryotic cells and especially designed for hard to transfect cells</li> </ul>

	<ul style="list-style-type: none"> <li>Make DNA-Lipofectamine™ 3000 complexes in serum-free medium such as Opti-MEM™ Reduced Serum Medium and add directly to cells in culture medium, in the presence or absence of serum/antibiotic.</li> </ul>
--	---

	<ul style="list-style-type: none"> <li>It is not necessary to remove complexes or change/add medium after transfection.</li> <li>The amount of Lipofectamine™ 3000 Reagent for successful transfection varies. Start any new transfection by testing the recommended two concentrations of Lipofectamine™ 3000 Reagent to determine an optimum amount.</li> </ul>
--	---

Online Resources	
	Visit our product page for additional information and protocols. For support visit <a href="http://thermofisher.com/support">thermofisher.com/support</a>



For Research Use Only. Not for use in diagnostic procedures.

## Protocol Outline

- Plate cells so they will be 70–90% confluent at the time of transfection.
- Prepare plasmid DNA-lipid complexes (recommend 2 doses of lipid).
- Add DNA-lipid complexes to cells.

## Transfection Amounts

Component	96-well	24-well	6-well
DNA per well	100 ng	500 ng	2500 ng
P3000™ Reagent per well	0.2 µL	1 µL	5 µL
Lipofectamine™ 3000 Reagent per well	0.15 and 0.3 µL	0.75 and 1.5 µL	3.75 and 7.5 µL

## Transfection of siRNA

To transfect cells with siRNA, follow the protocol as described for DNA but **do not** add P3000™ Reagent when diluting the siRNA (step 3).

## Limited Product Warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at [www.lifetechnologies.com/termsandconditions](http://www.lifetechnologies.com/termsandconditions). If you have any questions, please contact Life Technologies at [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

## Important Licensing Information

These products may be covered by one or more Limited Use Label Licenses. By use of these products, you accept the terms and conditions of all applicable Limited Use Label Licenses.

## Disclaimer








LIFE TECHNOLOGIES CORPORATION AND/OR ITS AFFILIATE(S) DISCLAIM ALL WARRANTIES WITH RESPECT TO THIS DOCUMENT, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. TO THE EXTENT ALLOWED BY LAW, IN NO EVENT SHALL LIFE TECHNOLOGIES AND/OR ITS AFFILIATE(S) BE LIABLE, WHETHER IN CONTRACT, TORT, WARRANTY, OR UNDER ANY STATUTE OR ON ANY OTHER BASIS FOR SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, MULTIPLE OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THIS DOCUMENT, INCLUDING BUT NOT LIMITED TO THE USE THEREOF.

Corporate Entity: Life Technologies | Carlsbad, CA 92008 USA | Toll free in USA 1.800.955.6288

© 2016 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified.

# Lipofectamine™ 3000 Reagent Protocol

Transfect cells according to the following table. Use the indicated volume of DNA and P3000™ Reagent with each of the two volumes of Lipofectamine™ 3000 (when performing optimization). Each reaction mix volume is for one well and accounts for pipetting variations. Scale volumes proportionally for additional wells.

Timeline		Steps	Procedure Details (Two Reaction Optimization)			
Day 0	<b>1</b>	 Seed cells to be 70–90% confluent at transfection	Component	96-well	24-well	6-well
	<b>2</b>	 Diluted Lipofectamine™ 3000 Vortex 2–3 sec Dilute Lipofectamine™ 3000 Reagent in Opti-MEM™ Medium (2 tubes) – Mix well	Adherent cells	$1-4 \times 10^4$	$0.5-2 \times 10^5$	$0.25-1 \times 10^6$
Day 1	<b>3</b>	 Diluted DNA Prepare master mix of DNA by diluting DNA in Opti-MEM™ Medium, then add P3000™ Reagent – Mix well	Opti-MEM™ Medium	$5 \mu\text{L} \times 2$	$25 \mu\text{L} \times 2$	$125 \mu\text{L} \times 2$
	<b>4</b>	 Add Diluted DNA to each tube of Diluted Lipofectamine™ 3000 Reagent (1:1 ratio)	Lipofectamine™ 3000 Reagent	0.15 and 0.3 $\mu\text{L}$	0.75 and 1.5 $\mu\text{L}$	3.75 and 7.5 $\mu\text{L}$
	<b>5</b>	 10-15 Incubate	Opti-MEM™ Medium	10 $\mu\text{L}$	50 $\mu\text{L}$	250 $\mu\text{L}$
	<b>6</b>	 Add DNA-lipid complex to cells	DNA (0.5–5 $\mu\text{g}/\mu\text{L}$ )	0.2 $\mu\text{g}$	1 $\mu\text{g}$	5 $\mu\text{g}$
	<b>7</b>	 Visualize/analyze transfected cells	P3000™ Reagent (2 $\mu\text{L}/\mu\text{g}$ DNA)	0.4 $\mu\text{L}$	2 $\mu\text{L}$	10 $\mu\text{L}$
	<b>8</b>		Diluted DNA (with P3000™ Reagent)	5 $\mu\text{L}$	25 $\mu\text{L}$	125 $\mu\text{L}$
<b>9</b>		Diluted Lipofectamine™ 3000 Reagent	5 $\mu\text{L}$	25 $\mu\text{L}$	125 $\mu\text{L}$	
Day 2–4			Component (per well)	96-well	24-well	6-well
			DNA-lipid complex	10 $\mu\text{L}$	50 $\mu\text{L}$	250 $\mu\text{L}$
			DNA amount	100 ng	500 ng	2500 ng
			P3000™ Reagent	0.2 $\mu\text{L}$	1 $\mu\text{L}$	5 $\mu\text{L}$
			Lipofectamine™ 3000 Reagent used	0.15 and 0.3 $\mu\text{L}$	0.75 and 1.5 $\mu\text{L}$	3.75 and 7.5 $\mu\text{L}$
			Incubate cells for 2–4 days at 37°C. Then, analyze transfected cells.			