



GeticoFect 3000 Transfection Reagent - Plasmid Transfection Instruction Manual

Ordering Information

Product Name	Product No.	Specification	Storage
GeticoFect 3000 Transfection Reagent	130101	0.75 mL	2–8 °C
GeticoFect 3000 Transfection Reagent	130102	1.5 mL	2–8 °C
GeticoFect 3000 Transfection Reagent	130103	15 mL	2–8 °C

Product Description

GeticoFect 3000 is a highly efficient, low-toxicity, and serum-resistant transfection reagent. It features high transfection efficiency, low cytotoxicity, and a simple operation method, making it a widely universal transfection reagent suitable for DNA, RNA, and RNAi transfection, and compatible with hundreds of cell types.

For common cell types, GeticoFect 3000 reagent offers higher efficiency and lower usage compared to other reagents, thus bringing better cost-performance to customers. The 1.5 mL specification product is sufficient to complete up to 1500 transfection reactions (in 24-well plates).

Shipping and Storage

Shipped with ice packs, stored at 2–8 °C. Do not freeze.

Transfection Procedure

Note 1: The usage amount of the transfection reagent is affected by cell types and experimental conditions. It is recommended to set gradients for optimization when using it for the first time.

Note 2: This product is specially optimized for use in serum-containing and serum-free media. The medium

does not need to be changed before transfection; the transfection reagent and sample can be directly mixed and added to the culture medium. For some difficult-to-transfect cells, it is recommended to replace them with serum-free medium before transfection and then switch back to complete medium or add serum after 4–6 hours of transfection.

- **Adherent cells:** 1 day (20–24 hours) before transfection, digest cells with trypsin and count them. Plate cells (antibiotic-free), and the cell density at the time of transfection should be 70–90%.
- **Suspension cells:** The cell density at the time of transfection should be 70–90%.

1. Inoculate cells to 70–90% confluency. Perform transfection according to the following cell counts:

Culture Dish Type	96-Well	24-Well	6-Well
Cell Number	1–4×10 ⁴	0.5–2×10 ⁵	0.25–1×10 ⁶

2. Take a new EP tube, dilute GeticoFect 3000 transfection reagent with Opti-MEM medium according to the table below, make two replicates, and mix thoroughly.

Culture Dish Type	96-Well	24-Well	6-Well
Opti-MEM Medium	5 µL	25 µL	125 µL
GeticoFect 3000	0.15 µL or 0.3 µL	0.75 µL or 1.5 µL	3.75 µL or 7.5 µL

3. Take a new EP tube, dilute the DNA sample to be transfected with Opti-MEM medium, prepare the DNA premix, and mix thoroughly.

Culture Dish Type	96-Well	24-Well	6-Well
Opti-MEM Medium	5 µL	25 µL	125 µL
DNA (0.5–5 µg/µL)	0.1 µg	0.5 µg	2.5 µg

4. Take a new EP tube, mix the premixes prepared in steps 2 and 3 at a 1:1 ratio, pipette gently to mix, and let stand at room temperature for 10–15 minutes.

Culture Dish Type	96-Well	24-Well	6-Well
Diluted DNA	5 μ L	25 μ L	125 μ L
Diluted GeticoFect 3000	5 μ L	25 μ L	125 μ L

5. Add the mixture incubated in the above step to the cells according to the following volumes.

Culture Dish Type	96-Well	24-Well	6-Well
DNA-GeticoFect 3000 Complex	10 μ L	50 μ L	250 μ L
DNA Dosage per Well	100 ng	500 ng	2500 ng
GeticoFect 3000 Dosage per Well	0.15 μ L or 0.3 μ L	0.75 μ L or 1.5 μ L	3.75 μ L or 7.5 μ L

6. Incubate the transfected cells at 37°C for 2–4 days, and analyze the transfection efficiency and cell status using a microscope.

Note: This product is specially optimized. For most cells, medium replacement is not required after transfection. Incubate at 37°C for 2–4 days to detect the gene transfection effect. If required by the experiment, the medium can be replaced at around 4–6 hours after transfection. The incubation time is slightly different and related to cell types.

Appendix: Configuration Table of Common Experimental Systems

Culture Dish Type	Serum-Free Medium Usage		DNA Transfection		siRNA Transfection	
	Cell Culture Medium Volume	Medium Volume for Transfection Reagent Preparation	DNA (μ g)	GeticoFect 3000 Reagent (μ L)	siRNA (pmol)	GeticoFect 3000 Reagent (μ L)
96-well	100 μ L	2 \times 5 μ L	0.1	0.15, 0.3	3	0.3

Culture Dish	Serum-Free Medium Usage		DNA Transfection		siRNA Transfection	
	Volume	Volume	Volume	Volume	Volume	Volume
48-well	250 μ L	2 \times 12.5 μ L	0.25	0.37, 0.75	7.5	0.75
24-well	500 μ L	2 \times 25 μ L	0.5	0.75, 1.5	15	1.5
12-well	1 mL	2 \times 50 μ L	1	1.5, 3	30	3
6-well	2 mL	2 \times 125 μ L	2.5	3.75, 7.5	75	7.5
60 mm	5 mL	2 \times 250 μ L	5.5–11	8.25, 16.5	166	17
10 cm	10 mL	2 \times 500 μ L	14–28	21.7, 43.4	434	43
T75	15 mL	2 \times 750 μ L	20–40	29.6, 59.2	592	59
T175	35 mL	2 \times 1.75 mL	46–90	69, 138	1382	138