



GeticoFect 2000 Transfection Reagent - Instruction Manual

Ordering Information

Product Name	Product No.	Specification	Storage
GeticoFect 2000 Transfection Reagent	130101	0.75 mL	4 °C
GeticoFect 2000 Transfection Reagent	130102	1.5 mL	4 °C
GeticoFect 2000 Transfection Reagent	130103	15 mL	4 °C

Product Description

GeticoFect 2000 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. This product can be used for transfection of both adherent and suspension cells.

For common cell types, GeticoFect 2000 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 2000 transfection reagent with Opti-MEM medium according to the table below, make 4 replicates, and mix thoroughly.

Culture Dish Type	96-Well	24-Well	6-Well
Opti-MEM Medium	5 μL	25 μL	125 μL
GeticoFect 2000	1 μL, 1.5 μL, 2 μL, 2.5 μL	2 μL, 3 μL, 4 μL, 5 μL	6 μL, 9 μL, 12 μL, 15 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 μ L	25 μ L	125 μ L
DNA (0.5–5 μ g/ μ L)	0.1 μ g	0.5 μ g	2.5 μ g

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	6-Well
Diluted DNA	5 μ L	125 μ L
Diluted GeticoFect 2000	5 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 2000 Complex	10 μ L	50 μ L	250 μ L
DNA Dosage per Well	100 ng	500 ng	2500 ng
GeticoFect 2000 Dosage per Well	0.2 μ L–0.5 μ L	1 μ L–2.5 μ L	5 μ L–12.5 μ L

6. Incubate the transfected cells at 37°C for 1–3 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 1–3 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.

Transfection Reagent Configuration Table

Culture Dish Type	Serum-Free Medium Usage	DNA Transfection		siRNA Transfection		
		DNA (μg)	GeticoFect 2000 Reagent (μL)	siRNA (pmol)	GeticoFect 2000 Reagent (μL)	
Cell Culture Medium Volume	Medium Volume for Transfection Reagent Preparation					
96-well	100 μL	2 \times 5 μL	0.1	0.2–0.5	3	0.3
48-well	250 μL	2 \times 12.5 μL	0.25	0.5–1.3	7.5	0.75
24-well	500 μL	2 \times 25 μL	0.5	1–2.5	15	1.5
12-well	1 mL	2 \times 50 μL	1	2–5	30	3
6-well	2 mL	2 \times 125 μL	2.5	5–12.5	75	7.5
60 mm	5 mL	2 \times 250 μL	5.5–11	11–28	166	17
10 cm	10 mL	2 \times 500 μL	14–28	29–73	434	43
T75	15 mL	2 \times 750 μL	20–40	39–100	592	59
T175	35 mL	2 \times 1.75 mL	46–90	92–230	1382	138

Note: Co-transfection of plasmid DNA and siRNA Co-transfection can be performed at a ratio of 30 pmol (~0.6 μg) of siRNA to 1 μg of DNA.