GeticoFect 3000Plus Transfection Reagent User Manual

Ordering Information

Product Name	Product Number	Specification	Storage
GeticoFect 3000Plus Transfection Reagent	131201	0.75 mL	2–8°C
GeticoFect 3000Plus Transfection Reagent	131202	1.5 mL	2–8°C
GeticoFect 3000Plus Transfection Reagent	131203	15 mL	2–8°C

Product Description

GeticoFect 3000Plus is a highly efficient, low-toxicity, and serum-resistant transfection reagent, featuring high transfection efficiency, low cytotoxicity, and a simple operation method. It is a widely compatible transfection reagent suitable for DNA, RNA, and RNAi transfection, and can be used for hundreds of cell types.

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

Shipping and Storage

Ship with ice packs. Store at 2–8°C. Do not freeze.

Transfection Protocol

Note 1: The usage of the transfection reagent is affected by cell types and experimental conditions. It is recommended to set up gradients for optimization when using it for the first time.
Note 2: This product is specially optimized for serum-containing and serum-free media. The medium does not need to be changed before transfection—simply mix the transfection reagent with the sample and add to the culture medium. For difficult-to-transfect cells, replacing with serum-free medium before transfection and switching back to complete medium or adding serum 4–6 hours after transfection is recommended.

- **Adherent cells**: 20–24 hours before transfection, digest cells with trypsin, count them, and plate cells (without antibiotics). Cell density should be 70–90% at transfection.
- **Suspension cells**: Cell density should be 70–90% at transfection.

1. Inoculate cells to 70–90% confluence and perform transfection according to the following cell counts:

Culture Vessel Type	96-Well	24-Well	6-Well
Cell Count	1–4×10^4	0.5–2×10^5	0.25–1×10^6

2. Take a new EP tube, dilute GeticoFect 3000Plus transfection reagent with Opti-MEM medium as shown below, prepare two replicates, and mix well:

Culture Vessel 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 MEM medium to prepare a DNA premix, and mix well:

Culture Vessel 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
GeticoFect T3000 Reagent	0.2 µL	1 µL	5 µL

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

Culture Vessel Type	96-Well	24-Well	6-Well
Diluted DNA	5 µL	25 µL	125 µL
Diluted GeticoFect 3000	5 µL	25 µL	125 µL

5. Add the incubated mixture to the cells in the following volumes:

Culture Vessel Type	96-Well	24-Well	6-Well
DNA-GeticoFect 3000Plus Complex	10 µL	50 µL	250 µL
DNA Dosage per Well	100 ng	500 ng	2500 ng
T3000 Dosage per Well	0.2 µL	1 µL	5 µL
GeticoFect 3000 Dosage per Well	0.15 µL or 0.3 µL	0.75 µL or 1.5 µL	3.75 µL or 7.5 µL

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

Note: This product is specially optimized. For most cells, medium replacement is unnecessary after transfection, and gene transfection effects can be detected after culturing at 37°C for 1–3 days. If required, the medium can be replaced approximately 4–6 hours after transfection. Incubation time varies depending on cell types.

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Appendix: Configuration Table for Common Experimental Systems

Culture Vessel Type	Cell Culture Medium Volume	Medium Volume for Transfection Reagent Preparation	**DNA Transfection**			**siRNA Transfection**	
			DNA (μg)	T3000 (μL)	GeticoFect 3000Plus Reagent (μL)	siRNA (pmol)	GeticoFect 3000Plus Reagent (μL)
96-Well	100 μL	2×5 μL	0.1	0.2	0.15, 0.3	3	0.3
48-Well	250 μL	2×12.5 μL	0.25	0.5	0.37, 0.75	7.5	0.75
24-Well	500 μL	2×25 μL	0.5	1	0.75, 1.5	15	1.5
12-Well	1 mL	2×50 μL	1	2	1.5, 3	30	3
6-Well	2 mL	2×125 μL	2.5	5	3.75, 7.5	75	7.5
60 mm	5 mL	2×250 μL	5.5–11	11–22	8.25, 16.5	166	17
10 cm	10 mL	2×500 μL	14–28	28–56	21.7, 43.4	434	43
T75	15 mL	2×750 μL	20–40	40–80	29.6, 59.2	592	59
T175	35 mL	2×1.75 mL	46–90	92–180	69, 138	1382	138