

siRNA Transfection Instruction Manual

PGbioFect 3000 Transfection Reagent

Product Description

PGbioFect 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, PGbioFect 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.

Ordering Information

Product Name	Product No.	Specification	Storage
PGbioFect 3000 Transfection Reagent	TR-3000-075	0.75 mL	4 °C
PGbioFect 3000 Transfection Reagent	TR-3000-150	1.5 mL	4 °C
PGbioFect 3000 Transfection Reagent	TR-3000-1500	15 mL	4 °C

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.

01. 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

02. Take a new EP tube, dilute PGbioFect 3000 RNAiMax 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
PGbioFect 3000	0.3 µL	1.5 µL	7.5 µL

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

Culture Dish Type	96-Well	24-Well	6-Well
Opti-MEM Medium	5 µL	25 µL	125 µL
siRNA (10 µM)	0.1 µL (1 pmol)	0.5 µL (5 pmol)	2.5 µL (25 pmol)

04. 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 5 minutes.

Culture Dish Type	96-Well	24-Well	6-Well
Diluted siRNA	5 µL	25 µL	125 µL
PGbioFect 3000	5 µL	25 µL	125 µL

05. 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
siRNA-PGbioFect 3000 Complex	10 µL	50 µL	250 µL
siRNA per Well	1 pmol	5 pmol	25 pmol
PGbioFect 3000 per Well	0.3 µL	1.5 µL	7.5 µL

06. Incubate the transfected cells at 37°C for 1–3 days, and analyze the transfection efficiency and cell status using a microscope.

Appendix: Configuration Table of Common Experimental Systems

Culture Dish Type	Relative Surface Area	Plating Medium Volume	Diluted Medium (Reverse Transfection)	Diluted Medium (Forward Transfection)	RNAi (pmol)	RNAi (nM)	PGbioFect 3000
96-Well	0.2	100 µL	20 µL	2×10 µL	0.12–6	1–50	0.1–0.3 µL
48-Well	0.4	200 µL	40 µL	2×20 µL	0.24–12	1–50	0.2–0.6 µL
24-Well	1	500 µL	100 µL	2×50 µL	0.6–30	1–50	0.5–1.5 µL
6-Well	5	2.5 mL	500 µL	2×250 µL	3–150	1–50	2.5–7.5 µL
60 mm	10	5 mL	1 mL	2×500 µL	6–300	1–50	5–15 µL
100 mm	30	10 mL	2 mL	2×1 mL	12–600	1–50	15–35 µL



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