GeticoFect HQ Transfection Reagent Instruction Manual

Ordering Information

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

Product Description

GeticoFect HQ reagent is a plasmid transfection reagent that provides high efficiency and low toxicity, thus achieving the highest possible transfection efficiency and cell viability.

GeticoFect™ HQ reagent is carefully designed for high-efficiency and low-toxicity plasmid transfection, suitable for various suspension cells such as 293F, CHO, etc., and various difficult-to-transfect cells such as THP1, SKBr-3, RAW264.7, Primary Mouse Neural Progenitor, PC12, NHFF, NIH3T3, MCF-7, LNCap, K562, Jurkat, IMR-90, HUVEC, HT-1080, HL-60, Hep G2, Hela S3, HCT-116, Grip Tite 293MSR, CHO-K1, COS-7, Caco-2, C6, THP-1, ACHN, ARPE-19, etc.

GeticoFect HQ transfection reagent offers extremely high convenience and excellent experimental results in terms of efficiency, convenience, and mildness for transfecting primary cell lines, difficult cell lines, and sensitive cell lines. GeticoFect HQ reagent is prepared from 100% animal-source-free components and can be easily used in various research experiments or cell lines.

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 HQ transfection reagent with Opti-MEM medium according to the table below. The reagent dosage shown in the table is for a single well. 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 HQ	0.3 µL	1.5 µL	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
HQ-ER Enhancer	0.3 µL	1.5 µL	7.5 µL

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 µL	25 µL	125 µL
Diluted GeticoFect HQ	5 µL	25 µL	125 µL

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 HQ Complex	10 µL	50 µL	250 µL
DNA Dosage per Well	100 ng	500 ng	2500 ng
GeticoFect HQ Dosage per Well	0.3 µL	1.5 µL	7.5 µL
HQ-ER Enhancer Dosage per Well	0.3 µL	1.5 µL	7.5 µL

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**	
	Cell Culture Medium Volume	Medium Volume for Transfection Reagent Preparation	DNA (μg)	GeticoFect HQ Reagent (μL)
96-well	100 μL	2×5 μL	0.1	0.15, 0.3
48-well	250 μL	2×12.5 μL	0.25	0.37, 0.75
24-well	500 μL	2×25 μL	0.5	0.75, 1.5
12-well	1 mL	2×50 μL	1	1.5, 3
6-well	2 mL	2×125 μL	2.5	3.75, 7.5
60 mm	5 mL	2×250 μL	5.5–11	8.25, 16.5
10 cm	10 mL	2×500 μL	14–28	21.7, 43.4
T75	15 mL	2×750 μL	20–40	29.6, 59.2
T175	35 mL	2×1.75 mL	46–90	69, 138