GeticoFect™ Multi Transfection Reagent User Manual

Ordering Information

Product Name	Product Number	Specification	Storage
GeticoFect Multi Transfection Reagent	181901	0.75 mL	2–8°C
GeticoFect Multi Transfection Reagent	181902	1.5 mL	2–8°C
GeticoFect Multi Transfection Reagent	181903	15 mL	2–8°C

Product Description

GeticoFect Multi 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 transfecting plasmid DNA, RNA, siRNA, miRNA, ssDNA, proteins, etc., and can be used for hundreds of cell types.

This product is our latest developed universal, high-quality transfection reagent based on years of R&D experience in transfection reagents. It combines the high transfection efficiency advantages of our premium GeticoFect 3000plus, GeticoFect RNAiPlus, and GeticoFect Cas9, and has broad nucleic acid and cell versatility. With just one transfection reagent, it enables efficient transfection of plasmid DNA, RNA, siRNA, miRNA, ssDNA, proteins, etc. For common cell types, GeticoFect Multi 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 Multi 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 Multi	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 to prepare a 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
siRNA (10 µM)	0.1 µL (1 pmol)	0.5 µL (5 pmol)	1.5 µL (25 pmol)
mRNA (0.5–5 µg/µL)	0.1 µg	0.5 µg	2.5 µg

Culture Vessel Type	96-Well	24-Well	6-Well
Cas9 Protein	250 ng	1250 ng	6250 ng
Synthetic sgRNA	50 ng	240 ng	1200 ng
GeticoFect Muliti-ER	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 Vessel Type	96-Well	24-Well	6-Well
Diluted DNA	5 µL	25 µL	125 µL
Diluted GeticoFect Multi	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 Multi Complex	10 µL	50 µL	250 µL
Muliti-ER Dosage per Well	0.3 µL	1.5 µL	7.5 µL
GeticoFect Multi 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 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.

Appendix: Configuration Table for Common Experimental Systems

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