GeticoFect Stem Transfection Reagent Instruction Manual

Ordering Information

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

Product Description

GeticoFect Stem transfection reagent is optimized to achieve maximum efficiency in various stem cells while minimizing effects on early differentiation. It enables co-transfection of DNA, RNA, and Cas9 ribonucleoprotein (RNP) complexes. Compatible with multiple medium systems, including feeder-free systems, GeticoFect Stem helps support and simplify stem cell culture workflows. Researchers can achieve transfection efficiencies of up to 85% or higher in pluripotent stem cells (PSCs) and neural stem cells (NSCs), and up to 60% or higher in mesenchymal stem cells (MSCs).

For common cell types, GeticoFect Stem 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 (24-Well Format, 4 Replicates)

Note: 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.

1. Inoculate stem cells to 30–60% confluency. Perform transfection according to the following cell counts:

Culture Dish Type	**24-Well**
Cell Number	$2.5–7.5\times10^4$

2. Take a new EP tube, dilute GeticoFect Stem transfection reagent with Opti-MEM medium according to the table below, make two replicates, mix thoroughly, and incubate at room temperature for 10 minutes.

Culture Dish Type	**24-Well - Replicate 1**	**24-Well - Replicate 2**	**24-Well - Replicate 3**	**24-Well - Replicate 4**
Opti-MEM Medium	25 µL	25 µL	25 µL	25 µL
GeticoFect Stem	1 µL	1 µL	2 µL	2 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	24-Well - Replicate 1	24-Well - Replicate 2	24-Well - Replicate 3	24-Well - Replicate 4
Opti-MEM Medium	25 µL	25 µL	25 µL	25 µL
DNA	250 ng	500 ng	250 ng	500 ng

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 incubate at room temperature for 10 minutes.

Culture Dish Type	24-Well - Replicate 1	24-Well - Replicate 2	24-Well - Replicate 3	24-Well - Replicate 4
Diluted DNA	25 µL	25 µL	25 µL	25 µL
Diluted Transfection Reagent	25 µL	25 µL	25 µL	25 µL

5. Add the mixture incubated in the above step to the cells according to the following volumes.

Culture Dish Type	24-Well - Replicate 1	24-Well - Replicate 2	24-Well - Replicate 3	24-Well - Replicate 4
DNA-GeticoFect Stem Complex	50 µL	50 µL	50 µL	50 µL
DNA Dosage per Well	250 ng	500 ng	250 ng	500 ng
GeticoFect Stem Dosage per Well	1 µL	1 µL	2 µL	2 µL

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