Ver. HB230215

Hieff Trans™ PEI Transfection Reagent

Product description

This product is a Linear Polyethylenimine(PEI) after optimization and transformation, with a concentration of 1 mg/mL. This product is purely chemically synthesized and does not contain animal-derived ingredients. It is particularly suitable for co-transfection of multiple plasmids, for the production of recombinant virus vectors and the instantaneous expression of recombinant proteins. This product has low cytotoxicity, high transfection efficiency, and is compatible with antibiotics. It has high gene expression efficiency in HEK293 and other cells.

Components

Components No.	Name	40820ES04	40820ES10	40820ES60
40820	Hieff Trans™ PEI Transfection Reagent	1.5 mL	10 mL	100 mL

Specifications

Form	Liquid
Serum Compatible	Yes
Cell Type	Established Cell Lines
Sample Type	Plasmid DNA
Transfection Technique	PEI-Based Transfection

Storage

The product could be stored at 2-8ºC for two years. Do not freeze!

Instructions

1. Suspended cells (take 1 L shake flask as an example)

1.1 Inoculated cells

Select the appropriate inoculation density according to the cell state, and the recommended cell inoculation density is 1-1.5×10^6 cells/mL, so that the cell density at the second day of transfection is 2-3×10^6 cells/mL is appropriate.

1.2 Transfection complex configuration

1.2.1 Plasmid to reagent ratio: DNA (μg): Hieff Trans™ (μL) ratio was kept at 1:1-1:3 when use.

1.2.2 Plasmid dilution: dilute 2 mg of plasmid with 50 mL of serum-free medium (Opti-MEM), and mix gently.

1.2.3 Reagent dilution: dilute 2 mL of Hieff Trans™ PEI transfection reagent with 48 mL of serum-free medium (Opti-MEM) and mix gently.

1.2.4 Preparation of complex: add the 50 mL reagent diluent into 50 mL plasmid diluent, mix gently, and incubate at room temperature (15-25°C) for 10-20 mins to form the plasmid-PEI complex for standby.

1.3 Transfected cells

1.3.1 Add 100 mL of plasmid-PEI complex into 1 L of cultured cells.

1.3.2 Continue to culture cells under the conditions of appropriate temperature and CO_2, and harvest the virus under the conditions of 72 h-96 h or groping.

2. Adherent cells (take 10 cm culture dish as an example)

2.1 Inoculated cells

According to the cell state, select the appropriate inoculation density. It is suggested that the cell planking density is 50-80%, so that the cell density is 70-90% at the next day of transfection.

2.2 Transfection complex configuration

2.2.1 Plasmid to reagent ratio: DNA (μg): Hieff Trans™ (μL) ratio was kept at 1:1-1:3 when use.

2.2.2 Plasmid dilution: use 250 μL Serum free medium (Opti-MEM) dilution 8 μg plasmid, and mix gently.

2.2.3 Reagent dilution: use 242 μL Serum free medium (Opti-MEM) dilution 8 μL Hieff Trans™ PEI transfection reagent, and mix gently.

2.2.4 Configuration compound: 250 will be configured μL reagent diluent added to 250 μL plasmid diluent, gently swirl and mix, and then stand for 10-20 min at room temperature to form plasmid-PEI complex for standby.

2.3 Transfected cells

2.3.1 Add 500 μL of plasmid-PEI complex into 10 mL of cultured cells.

2.3.2 Continue to culture cells under the conditions of appropriate temperature and CO_2, and harvest the virus under the conditions of 72 h-96 h or groping.

The amount of transfection for different cell culture vessels (for reference only)

Culture vessel	Surf. area per well * (cm^2)	DNA(μg)	Transfection reagent(μL)	Vol. of dilution medium **(μL)	Vol. of plating medium
96-well	0.3	0.1	0.1	10	100 μL
48-well	0.7	0.2	0.2	20	200 μL
24-well	1.9	0.5	0.5	50	500 μL
12-well	3.8	1	1	50	1 mL
6-well	10	2	2	100	2 mL
Flask 25cm^2	21	4	4	200	4 mL
Flask 75cm^2	58	8	8	500	10 mL
10cm dish	60	8	8	500	10 mL

*. The surface area of cell culture plates provided by different manufacturers may vary.

**. Volume of medium used to dilute DNA.