HB221024

Hieff Trans™ Universal Transfection Reagent

Product Information

Product Name	Cat#	Size
Hieff Trans™ Universal Transfection Reagent	40808ES02	0.5 mL
	40808ES03	1 mL
	40808ES08	5×1 mL

Product Description

Hieff Trans™ universal transfection reagent is a multi-purpose, convenient and efficient liposome transfection reagent developed based on the latest nanotechnology. It is suitable for the transfection of DNA, RNA and oligonucleotides, difficult to transfect cells, have high transfection efficiency. Its unique formula allows it to be added directly to the medium, and the presence of serum does not affect transfection efficiency, which reduces the damage to cells caused by serum removal. It is not necessary to remove the nucleic acid-transfection reagent complex or replace with fresh medium after transfection, and the fresh medium can also be replaced after 4-6 hours according to the nutrient status of the cells.

Product Components

Component Number	Components	Cat#/Size		
		40808ES02	40808ES03	40808ES03
40808-A	Universal-A	0.5 mL	1 mL	5×1 mL
40808-B	Universal-B	0.5 mL	1 mL	5×1 mL

Shipping and Storage

The product is shipped with ice packs and can be stored at 2-8ºC for one year. Do not freeze!

Cautions

1) During the transfection operation, it is better that the cell confluence reaches 70%-90%, and the specific plating density is determined according to the situation of the cells.
2) Preparation of transfection complexes requires dilution of DNA and transfection reagents in serum-free medium.
3) Antibiotics cannot be added to the medium during transfection.
4) The use of high-purity DNA or RNA helps to obtain higher transfection efficiency, and endotoxin in plasmids is the enemy of transfection.
5) Store at 2-8ºC, be careful not to open the lid repeatedly for a long time.
6) The nucleic acid concentration and reagent volume should be optimized for the first use to obtain the maximum transfection efficiency.
7) For research use only!

Instructions

Transfection of DNA

【Note】The amount of transfection reagent used is affected by the cell type and other experimental conditions. It is recommended to set a gradient to optimize the optimal amount of use for the first time.

1) The cells are plated, and the cell confluence should be 70%-90% by the time of transfection.
2) Dilute the Universal-B solution with Opti-MEM medium according to the table below and mix gently.
3) Dilute DNA with Opti-MEM medium to obtain DNA premix, then add Universal-A solution and mix gently to obtain diluted

DNA.

4) Add the diluted DNA to the diluted Universal-B solution (1:1 ratio).

5) Incubate at room temperature for 5 minutes.

6) Add the DNA-liposome complex to the cells dropwise and mix gently.

7) Incubate at 37°C, 5% CO2 incubator for 48-96 h until gene expression analysis.

Transfection of siRNA

The procedure for transfection of siRNA is the same as that for DNA transfection, except that Universal-A solution (step 3) does not need to be added when diluting siRNA.

Table 1 The amount of transfection in different cell culture vessels (for reference only)

Cell culture vessels		96-well	24-well	6-well
Adherent cells		1-4×10^4	0.5-2×10^5	0.25-1×10^6
Dilute the Universal-B solution with Opti-MEM medium according to the table below and mix gently.	Opti-MEM medium	5 μL	25 μL	125 μL
	Universal-B	0.2 μL	1 μL	5 μL
Dilute DNA with Opti-MEM medium to obtain DNA premix, then add Universal-A solution and mix gently to obtain diluted DNA.	Opti-MEM medium	5 μL	25 μL	125 μL
	DNA (0.5–5 μg/μL)	0.1 μg	0.5 μg	2.5 μg
	Universal-A(2 μL/μg DNA)	0.2 μL	1 μL	5 μL
Add the diluted DNA to the diluted Universal-B solution (1:1 ratio).	Diluted DNA solution	5 μL	25 μL	125 μL
	Universal-B	5 μL	25 μL	125 μL
Incubate at room temperature for 5 minutes.				
DNA-Liposome Complex	Components（each well）	96-well	24-well	6-well
	Opti-MEM	10 μL	50 μL	250 μL
	DNA(0.5–5 μg/μL)	0.1 μg	0.5 μg	2.5 μg
	Universal-B	0.2 μL	1 μL	5 μL
	Universal-A	0.2 μL	1 μL	5 μL
Add the DNA-liposome complex to the cells dropwise and mix gently.	DNA-Liposome Complex	10 μL	50 μL	250 μL

【Note】The amount used in the table is for reference only. The specific amount of DNA and Universal-B solution used should be optimized according to the cell type and other experimental conditions. It is recommended to keep the ratio between 1:0.5-1:5.