DNAHitrans Reagent

(Avoid repeated freeze-thaw cycles)

Description

DNAHitrans is a superior proprietary formulation optimized for the transfection of DNA into many eukaryotic cells with ease of use, maximal transfection efficiency and minimal cytotoxicity to a wide variety of other transfection techniques including calcium phosphate coprecipitation, electroporation, microinjection, biolistic particle delivery, complex formation with DEAE-dextran and lipofectamine-mediated DNA transfection. In addtion, because of its high transfection efficiency, no or minimal toxicity and immunogenicity, DNAHitrans also is a superior alternative for the transfection of DNA into many animals *in vivo* including mice, rats, tadpoles and ducks via intravenous, intraventricular, subcutaneous, tracheal and intraperitoneal injections.

Basic information

Product Name	DNAHitrans Reagent
Article Number	FK-K0204023
Specification	1.5mL
Storage	Store at +4℃ or -20℃
Shelf life	12 months

in vitro transfection

Use the following procedure to transfect mammalian cells in a 6-well format. For other formats, please see table 1.

1. **Adherent cells:** Cells should be seeded a day prior to transfection in 6-well plates at an appropriate density. Before transfection, cells should be washed twice with PBS, then cultured in 2 mL of basal medium (containing no additives ie serum, antibiotics or other proteins).
   Suspension cells: Just prior to preparing complexes, plate cells at an appropriate density in 2 mL of basal medium (containing no additives ie serum, antibiotics or other proteins).
2. Dilute 4 μg DNA in 250 μL PBS buffer and mix by pipetting up-down.
3. Dilute 10 μL DNAHitrans in 250 μL PBS, mix by pipetting up-down gently and incubate for 5 min at room temperature. Then combine the diluted DNA with diluted DNAHitrans, mix immediately by pipetting up-down and incubate for 20 minutes at room temperature.
4. Add the 500 μL of mixture to each well dropwise. Mix gently by rocking the plate back and forth.
5. Incubate cells at 37℃ in a CO_2 incubator for 4-6 hours and then the medium is replaced by complete medium.

in vivo Transfection

1. Dilute 10 μg of DNA in 50 μL of sterile PBS solution. Vortex gently and spin down briefly.

2. Dilute 5 µL of DNAHitrans in 50 µL of sterile PBS solution. Vortex gently and incubate for 5 min at room temperature.
3. Add the diluted 50 µL of DNAHitrans to the diluted 50 µL of DNA. Mix immediately by pipetting up-down immediately and spin down briefly. Incubate 20 min at room temperature.
4. Inject animals. Please see table 2.

Table 1. Scaling Up or Down Transfections

Culture vessel	Surface area per well (cm^2)	Volume of plating medium	DNA in PBS volume	DNAHitrans in PBS volume
96-well	0.3	100 µL	0.2 µg in 25 µL	0.5 µL in 25 µL
24-well	2	500 µL	0.8 µg in 50 µL	2.0 µL in 50 µL
12-well	4	1 mL	1.6 µg in 100 µL	4.0 µL in 100 µL
35-well	10	2 mL	4.0 µg in 250 uL	10 µL in 250 µL
6-well	10	2 mL	4.0 µg in 250 uL	10 µL in 250 uL
60-mm	20	5 mL	8.0 µg in 0.5 µL	20 µL in 0.5 mL
10-cm	30	15 mL	24 µg in 1.5 mL	60 µL in 1.5 mL

Table 2. Suggested Amount of DNA and Maximum Injection Volume

Animal	Route of injection	Suggested amount of DNA (µg)	Maximum injection volume (µL)
Adult mouse	Intravenous	25-125	400-600
	Retroorbital	40	200
	Intraperitoneal	100	600
	Heart	50	200
	Lung instillation	20	300
	Subcutaneous tumor	10	100
Nude mouse	Intravenous	50	200
	Subcutaneous tumor	10	100

*** DNAHitrans reagent is not recommended for siRNA transfection. For Single siRNA transfection or DNA/siRNA co-transfection experiment, another transfection reagent (EasyTrans) is recommended.**