Nano-Polymer Transfection Reagent

Cat. #: P901 (1 mL); P901S (0.1 mL)

Storage: 4°C (do not freeze) **Shelf life:** 12 months

Description (This product is for research use only)

It delivers DNA and siRNA as effectively as leading lipid-based reagents—at a fraction of the cost.

- Efficient gene delivery for most cells
- Cost-effective alternative to lipid-based products
- Nanotechnology based and low toxicity
- Ideal for virus packaging
- Rapid results and easy to use
- Ideal for high-throughput transfection
- No media changes required

Reagent needed but not included in this kit: serum-free DMEM with High Glucose.

Positive control: human embryonic kidney 293T cells

Table 1. Suggested Reaction Matrix

Culture Dish	Area (cm^2)	Cell Number	Medium (mL)	DNA (µg)	Transfection Reagent (µL)	DMEM (µL)
96-Well	0.2	1.4×10^4	0.13	0.1	0.3	10
48-Well	1	7.5×10^4	0.25	0.25	0.75	20
24-Well	2	1.5×10^5	0.50	0.5	1.5	50
12-Well	4	3.0×10^5	1.0	1	3	100
6-Well /35 mm	10	9.0×10^5	2.0	2.5	7.55	200
60 mm / T25	25	2.5×10^6	5.0	6-8	15-24	300
100 mm / T75	75	5.0×10^6	10	15-20	35-45	500
150 mm /T150	150	15×10^6	20	25-30	60-80	1000

Note:

For different cell type, the seeding cell density may vary. Customer should test the seeding condition to ensure the 70 ~ 80% confluency at the time of transfection. The transfection efficiency also depend on the cell type. For difficult-to-be-transfected cells, customers can try to increase the Transfection reagent volume up to 4 µl per µg of DNA.

Protocol (example of transfecting HEK293 cells in **one well of 24-well plate**. Refer to Table 1 for other plates or dishes)

Notice: Transfect cells at 70-80% confluency to achieve high transfection efficiency and low toxicity.

1. **Plating:** seed the cells **18 to 24 hours** prior to transfection in 24-well plate, at the density that allow the cells reaches 70~80% confluency at the time of transfection.
2. **Change medium: 2 hours before** transfection, remove culture medium and add **0.5 mL fresh** complete culture medium. (No need to use serum-free / antibiotics-free medium.)
3. In tube 1 add: 0.5 µg DNA
   50 µL DMEM (serum-free, High Glucose)
   Pipet up and down to mix well.
4. In tube 2 Add: 1.5 µL Transfection Reagent
   50 µL DMEM (serum-free, High Glucose)
   Gently pipet up and down to mix well.
5. Incubate at room temperature (20–25°C) for 3 min.
6. Transfer the mixture in tube 2 into tube 1. Then **Vortex** tube 1 for **10 seconds**.
7. Incubate tube 1 for **15 minutes** at **room temperature**.
8. After incubation, add the incubated mixture **drop-wise** to the cells, and homogenize by **gently swirling** the plate.
9. Put the cells back to cell incubator.
10. Check transfection efficiency 24 to 48 hours post transfection. -- The end –

Customer may also buy:

Product Name	101Bio Cat. #	Fisher Sci. Cat. #
Mouse Tail DNA extraction kit, 20 minutes done.	T605	NC1596514
Squeeze-1-Drop Do PCR Mix (in dripping bottle, no pipetting)	W2599-5	NC1100436
Lentivirus / Retrovirus Concentration Solution	P904C	*NC3242189*
Lentivirus 10X Titer-Up Reagent, up to 10 folds	P906	*NC1792390*
Retrovirus 10X Titer-Up Reagent, up to 10 folds	P909	*NC1692641*
Water Bath / Tub Disinfection Treatment Tablet (1 cleans for 1 week)	T20	*NC3352917*