

PEI transfection

PEI is polyethyleimine, a 25 kDa linear from Polysciences [Linear PEI 25 kDA Polysciences Inc. 2g 23966-2].

Schem:

1. Dilute **X** μg of **DNA**
In **V** μl of **NaCl solution** } Mix well
2. Dilute **Y** μg of **PEI** (PEI should be clear – if not – heat to 37°C)
In **V** μl of **NaCl solution** } Mix well
3. Add **PEI sol.** to **DNA sol.** - Incubate 10-20 minutes at RT
4. Dispatch **Z** μl of **transfection mix** per well

| Culture vessel | X amount of DNA | Y amount of PEI | V volume of NaCl | Z volume of transfection mix |
|----------------|---------------------|--|-------------------|------------------------------|
| 96-well | 0.25 μg | Optimize for cells by trying 1:2, 1:3, 1:5 DNA/PEI | 10 μl | 20 μl |
| 24-well | 1 μg | | 50 μl | 100 μl |
| 6-well | 3 μg | | 100 μl | 200 μl |
| 10cm | 10-20 μg | | 250 μl | 500 μl |

Cell lines recommended ratio:

| Cell | Ratio |
|---------|-------|
| Hela | 1:2 |
| 293T | 1:2 |
| Myeloma | 1:3 |

[High concentrations of DNA can form precipitate when mixed with PEI.]

PEI Reagent:

Make up solution at 1 mg/ml in sterile water, Neutralize with HCl to pH 7.4. And filter sterilize using a 0.22 μm filter.

Aliquot and store at -80°C.

The aliquot can be kept at 4°C for up to 4 month.