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Version 1

Green Lab Nanoparticle For 6 Well Cardiomyocyte Transfection V.1

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Protocol status: Working

We use this protocol and it's working

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Keywords: nanoparticle transfection, green lab nanoparticle, cardiomyocyte transfection, transfection

Abstract

nanoparticle transfection

Materials

Sodium acetate 25mM pH5

Polymer stock (100 ug/ul)

Desired media

Nanoparticle Synthesis

1 DNA Dilution

For 3 replicate wells of one condition in 6-well plate format, mix the following in microcentrifuge tube.

- 60 ul DNA at 1ug/ul
- 440 ul sodium acetate
- Total volume = 500 ul for 3 replicate wells per one condition

2 Polymer Dilution (7.2 mg.ml polymer concentration in NaAc)

For 3 replicate wells of one condition in 6-well plate format, mix the following in microcentrifuge tube.

- 40 ul polymer (e.g. 4-5-6)
- 460 ul sodium acetate
- Total volume = 500 ul for 3 replicate wells per one condition

3 Nanoparticle Synthesis

Combine diluted DNA with diluted polymer

- Add 500 ul of diluted DNA to 500 ul diluted polymer (can freeze here at -80 at your own risk)
- Add 5000 ul of media to 1000 ul NP's for final volume master mix of 6000 ul per condition
- Incubate for 10 minutes

4 Transfection

- Change media from each well of 6 well plate with 2000 ul nanoparticle master mix (media + nanoparticles)
- Incubate for 24 hours or desired time