MOLECTA
Инструменты и реактивы
для молекулярной биологии

GenJect transfection protocol

GenJect/NucleicAcid complex preparation and transfection procedure per 1 mL of the full growth medium (35 mm Petri Dish or 6-well plate)*

For other growth medium volumes and culture formats multiply all the volumes and quantities proportionally

Dilute **1 uL of the GenJect reagent in **50 uL** of DMEM in an empty well plate or a microtube, mix by pipetting 2 times and incubate 5-15 min.
Separately dilute **0,5 ug** of the nucleic acid (DNA or RNA) in **50 uL** of DMEM and mix by pipetting 2 times.
Other serum free medium or PBS or TE buffer can be used instead of DMEM.

Add the diluted GenJect solution drop by drop into the DNA/RNA solution (final volume ~100 uL). Mix by pipetting 2 times.

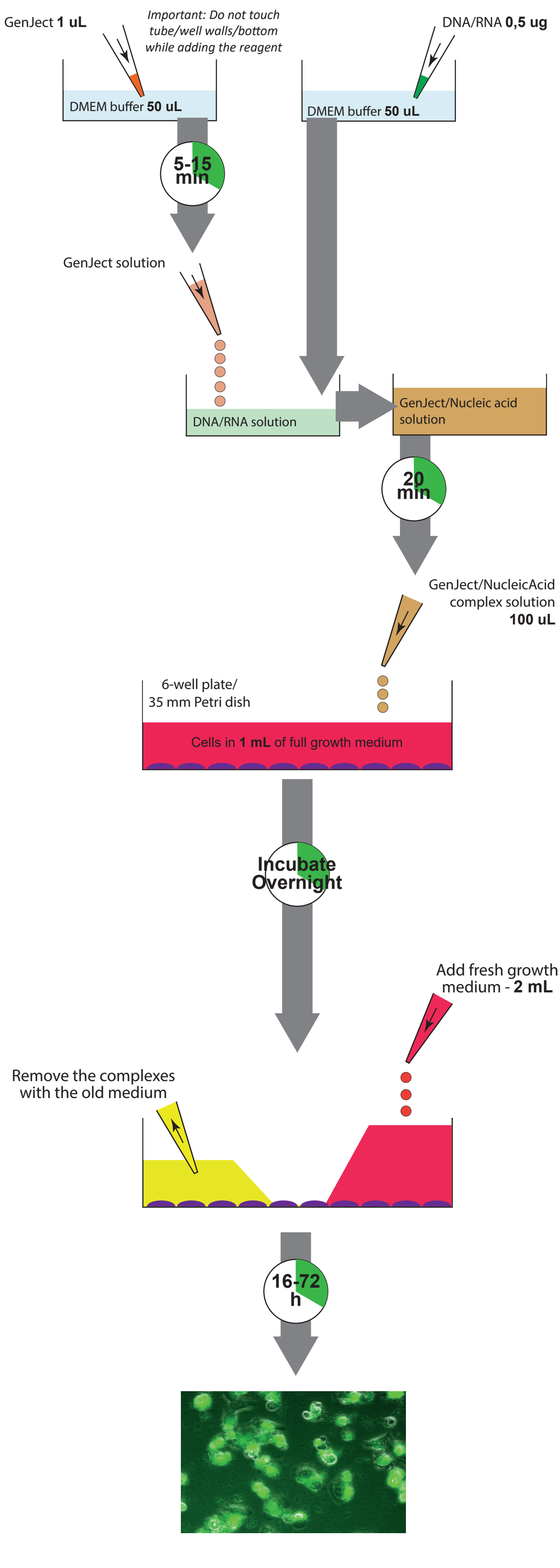
Incubate for 20 min at RT to form the GenJect/ NucleicAcid complexes.

Add the GenJect/NucleicAcid complex suspension into the 6-well plate/35 mm dish with the cells in **1 mL** of full growth medium. Mix by gentle plate/dish shaking.

Incubate the cells with the complexes overnight.
If cytotoxic, the incubation time can be shortened up to 15 min (4 h in average).

Change the growth medium. Add normal amount of the full growth medium (**2 mL**) for cultivation.

Culture the cells for 16-72 h before analyzing for the transgene.



***To reduce the consumption of GenJect and Nucleic Acid, cell transfection should be done in 1/2 of the normal volume of full growth medium (e.g. in 6-well plates or 35 mm Petri dish use 1 mL of full growth medium for transfection and 2 mL for further culturing).**

**Transfection efficiency optimization:
- if not cytotoxic, increase GenJect volume to 2, 3 and 4 uL per 1 mL of full growth medium;
- test different DNA/RNA quantity: 0,25, 0,5, 1 and 2 ug per 1 mL of full growth medium.
Keep the ratios (uL of Genjector-U)/(ug of NucleicAcid) between 6/1 to 2/1.
- test different buffers for complex preparation.