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Transformation

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[1]2021 iDEC NEFU_China

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ABSTRACT

This protocol is used to transform plasmid DNA into competent cells by chemical method or electroporation.

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MATERIALS TEXT

MicroPulser Electroporator
Electroporator
Bio-Rad laboratories **1652100**

Electroporation cuvette

BEFORE STARTING

Do not place the competent cells on the the ice for too long time before start.

1 Choose one transformation method depending on your requirement of transformation efficiency.
Step 1 includes a Step case.
Chemical transformation
Electroporation

step case

Chemical transformation

2 Thaw the competent cells on the ice for 10 min to let the suspension thaw.

3 Mix 100µl competent cells with about 10µl DNA.

4 Incubate on ice for ~30 min.

5 Heat shock at 42°C for 45 seconds in the water bath.

6 Incubate on ice for 2~5 min.

7 Add 0.5~1ml LB medium into the mixture of cells and DNA and mix well.

8 Incubate at 37°C for 1 hour, shaking at 200 rpm.

9 Plate on selective LB medium.