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Fluorescence measurement

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1 Works for me dx.doi.org/10.17504/protocols.io.8f9htr6

iGEM Dusseldorf

MATERIALS TEXT

LB-medium
antibiotic resistance
Tergitol
24 well plate
96 well plate

1 Prepare 5 ml LB medium with antibiotic resistance and 0.5% ml Tergitol

2 Inoculate one colony in the prepared LB medium

3 Add 0.01-1 mM of the desired fatty acid to the culture medium

4 Inoculate the culture for at least 16 hours at 37 °C

5 Measure the absorption with a photometer at a wavelength 600 nm

6 Dilute the culture to an OD_{600} of 0.05 with LB medium

7 Fill a 24 well plate with 800 µl of 3 biological with 3 technically replicats respectively like shown in the table below

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Sample 1.1	Sample 1.2	Sample 1.3	Sample 5.1	Sample 5.2	Sample 5.3
Sample 2.1	Sample 2.2	Sample 2.3	Sample 6.1	Sample 6.2	Sample 6.3
Sample 3.1	Sample 3.2	Sample 3.3	Sample 7.1	Sample 7.2	Sample 7.3
Sample 4.1	Sample 4.2	Sample 4.3	Sample 8.1	Sample 8.2	Sample 8.3

9 Inoculate the 24 well plate at 37°C for at least 16 hours

10 Transfer the samples from the 24 well plate on a 96 well plate like shown in the table below

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Sample 1.1	Sample 1.2	Sample 1.3	Sample 2.1	Sample 2.2	Sample 2.3	Sample 3.1	Sample 3.2	Sample 3.3	Sample 4.1	Sample 4.2	Sample 4.3
Sample 1.1	Sample 1.2	Sample 1.3	Sample 2.1	Sample 2.2	Sample 2.3	Sample 3.1	Sample 3.2	Sample 3.3	Sample 4.1	Sample 4.2	Sample 4.3
Sample 1.1	Sample 1.2	Sample 1.3	Sample 2.1	Sample 2.2	Sample 2.3	Sample 3.1	Sample 3.2	Sample 3.3	Sample 4.1	Sample 4.2	Sample 4.3
Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank
Sample 5.1	Sample 5.2	Sample 5.3	Sample 6.1	Sample 6.2	Sample 6.3	Sample 7.1	Sample 7.2	Sample 7.3	Sample 8.1	Sample 8.2	Sample 8.3
Sample 5.1	Sample 5.2	Sample 5.3	Sample 6.1	Sample 6.2	Sample 6.3	Sample 7.1	Sample 7.2	Sample 7.3	Sample 8.1	Sample 8.2	Sample 8.3
Sample 5.1	Sample 5.2	Sample 5.3	Sample 6.1	Sample 6.2	Sample 6.3	Sample 7.1	Sample 7.2	Sample 7.3	Sample 8.1	Sample 8.2	Sample 8.3
Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank	Blank

12 Measure the desired fluorescence at the appropriate wavelenght and the OD_{600} with a plate reader