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E. coli growth trend measurement (culture with silver ion)

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1 Works for me

 Sharedx.doi.org/10.17504/protocols.io.81wgby1byvpk/v1 Weizhuo.Chen

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ABSTRACT

This protocol helps obtain growth curve of *E. coli* cultured with concentration gradient of silver ion.

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IPTG induction

- 1 Grow *Escherichia coli* overnight and dilute the culture using LB to OD₆₀₀=0.4-0.6.
- 2 Add IPTG to cell culture (final concentration 1mM), and incubate the culture 3h at 171 rpm, 37°C in orbital shaking incubator.

Sample addition to microplate wells

- 3 Cells cultures, LB broth and silver nitrate (150μM) are added into 96-well microplate. The recipe is as the following chart:

Row of microplate wells	Ag ⁺ (μL) (1000μL in stock)	LB (μL)	Cells culture (μL) (OD600=0.05)	Total
A	0	0	0	0
B	0	160	40	200
C	1	159	40	200
D	2	158	40	200
E	4	156	40	200
F	8	152	40	200
G	16	144	40	200
H	0	0	0	0

E. coli cultured with concentration gradient of silver ion.

Microplate reader measurement

- 4 Incubate the microplate in orbital incubator (37°C 171 rpm) and measure OD₆₀₀ by microplate reader every two hours for two days.