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Creation of low-oxygen conditions. V.1

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Protocol status: In development

We are still developing and optimizing this protocol

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Abstract

We use Na₂SO₃ to create low-oxygen conditions in our experiment.

Materials

LB medium

Na₂SO₃

IPTG

SMART SENSOR AR8010+ Dissolved Oxygen Meter



1

- 1 Prepare LB medium with different concentrations of Na_2SO_3 .

1.1

Na₂SO₃ (100 g/L)	LB medium
0μL	20mL
20μL	20mL
40μL	20mL
100μL	20mL
200μL	20mL
400μL	20mL

- 2 Use Dissolved Oxygen Meter to measure dissolved oxygen of LB medium with different concentrations of Na_2SO_3 in 0h, 1h, 2h, 5h.

2

- 3 Add 50ml LB medium and 200ul bacteria solution to conical flask, shake overnight at 37°C.
- 4 Take 5 ml in 5 50ml centrifuge tubes separately, centrifuge the bacteria at 3000xg at room temperature for 5 min. Discard the supernatant.
- 5 Prepare LB medium with different concentrations of Na_2SO_3 .
Add Na_2SO_3 to LB medium.



	Na ₂ SO ₃ (100 g/L)	LB medium
	0ul	20ml
	100ul	20ml
	200ul	20ml
	400ul	20ml
	800ul	20ml

- 6 Add LB medium with different concentrations of Na₂SO₃ to 5 50ml centrifuge tubes separately.
- 7 Add 2ul IPTG to 5 50ml centrifuge tubes separately, and resuspend. Shake 5h at 37°C.
- 8 Use 酶标仪 to measure ABS with different concentrations of Na₂SO₃ in 0 h, 1h, 2h, 5h.