MEDIA:

Table S1 Media used in this study and their composition.

Components of media		
Components (abbreviation)	Compound(s)	Final concentration
Ammonium (N)	NH_4Cl	10 µM
Phosphate (P)	KH_2PO_4	10 µM
Trace metals (TM)	$FeCl_3 \cdot 6H_2O$	117 nM
	$MnCl_2 \cdot 4H_2O$	9 nM
	$ZnSO_4 \cdot 7H_2O$	800 pM
	$CoCl_2 \cdot 6H_2O$	500 pM
	$Na_2MoO_4 \cdot 2H_2O$	300 pM
	Na_2SeO_3	1 nM
	$NiCl_2 \cdot 6H_2O$	1 nM
Vitamin mixture (V)	Thiamine·HCl	59 nM
	Niacin	81 nM
	Ca-Pantothenate	84 nM
	Pyridoxine	59 nM
	Biotin	409 pM
	Folic acid	453 pM
	Vitamin B12	70 pM
	Myo-inositol	555 nM
	p-Aminobenzoic Acid	7 nM
Carbon mixture (CM)	Pyruvate	50 µM
	D-Glucose	5 µM
	N-Acetyl-D-glucosamine	5 µM
	D-Ribose	5 µM
	Methyl alcohol	5 µM
20 proteinogenic amino acid mixture (AA)	Each amino acid	100 nM, each
Media definition		
Media	Definition	
FAM	0.2 µm-filtered and autoclaved freshwater medium supplemented with N, P, and TM	
FAMV	FAM supplemented with V	
FAMV+CM	FAMV supplemented with CM	
FAMV+AA	FAMV supplemented with AA	
FAMV+CM+AA	FAMV supplemented with CM and AA	

- Inorganic Basal Medium
    - DOM sources: peptone, yeast extract, α-D-Glucose

- Undefined Media
    - Yeast extract

- https://www.researchgate.net/publication/302934940_Appendix_A_-_recipes_for_freshwater_and_seawater_media
    - COMBO, MW,
    - Pages 482-486
- https://www.oieau.org/eaudoc/system/files/documents/35/178744/178744_doc.pdf

AUTOCLAVED AND FILTERED LAKE WATER (Possibly supplemented with Trace metals and Vitamins)

Marine Broth from model experiment :

- Peptone 5g/L,
- Yeast extract 1g/L,
- Ferric Citrate 0.1g/L,
- Sodium Chloride 19.45g/L,
- Magnesium Chloride 5.9g/L
- Magnesium Sulfate 3.24g/L,
- Calcium Chloride 1.8g/L,

- Potassium Chloride 0.55g/L,
- Sodium Bicarbonate 0.16g/L,
- Potassium Bromide 0.08g/L,
- Strontium

Link to Tibbles Rawlings media: https://www.jstor.org/stable/4251335?seq=3

MAKE EXCEL DOC

PRACTICE PLAN

1. Make Plates
    a. 10^{-4}-10^{-8} Dilutions
        i. 5 plates for each sample
    b. 3 samples→ 15 plates
    c. Make 0.5 liters of plate media
        i. 23.5 g TB
        ii. 2ml glycerol
        iii. 0.5 liters H2O
        iv. 7.5 g agar?
2. Collect samples
    a. 1 gram of sediment per sample
3. Wash samples in PBS
    a. Remove non particle associated microbes
4. Sonicate with 1 gram sediment in 10 grams sterile solution
    a. 30 second on 30 seconds off
        i. 2, 4, 6 times
5. Separate bacteria from sediment
    a. Spin
6. Plate supernatant
    a. DTE