

**F/2 medium:**

For 400 mL of Autoclaved Artificial Sea Water:

- Trace Metals 0.4 mL
- Phosphate Stock 0.4 mL
- Vitamin Mix 200  $\mu$ L
- NaHCO<sub>3</sub> (fresh) Stock 1.0 mL

adjust pH to 7.8-8.2

**Stock Solutions:** (hereafter, molarities indicated are the final concentrations in F/2)

**Trace Metal Stock Solution:**

For 200 mL H<sub>2</sub>O milliQ:

- FeCl<sub>3</sub> 0.13 g
- EDTA 0.87 g
- 100  $\mu$ L of CuSO<sub>4</sub> 5H<sub>2</sub>O 0.98 g/100 mL
- 100  $\mu$ L of ZnSO<sub>4</sub> 7 H<sub>2</sub>O 2,2 g /100 mL
- 100  $\mu$ L of CoCl<sub>2</sub> 6H<sub>2</sub>O 1 g/100 mL
- 100  $\mu$ L of MnCl<sub>2</sub> 4H<sub>2</sub>O 18 g/100 mL
- 100  $\mu$ L of Na<sub>2</sub>MoO<sub>4</sub> 2H<sub>2</sub>O 0.63 g/100 mL

**Phosphate Stock Solution:**

For 200 mL H<sub>2</sub>O milliQ:

- NaH<sub>2</sub>PO<sub>4</sub> H<sub>2</sub>O 1 g

**NaHCO<sub>3</sub> (fresh) Stock:**

in 10 mL H<sub>2</sub>O milliQ:

- NaHCO<sub>3</sub> 0.42 g
- filter sterilise through 0.2  $\mu$ m filter.

**Vitamin Stock:**

For 250 mL H<sub>2</sub>O milliQ:

- Biotin 250  $\mu$ L
- Vitamin B12 250  $\mu$ L
- Thiamine HCl 50.0 mg

Aliquot in 200  $\mu$ L (or 400  $\mu$ L) and freeze (keep at -20° C)

**For Agar Plates:**

- Prepare medium with 2X stock solution (no vitamins), but same amount of Artificial Sea Water (typically 200 mL) + (optionally add 20 mM HEPES, from filter sterilised solution)
  - Prepare 3% w/v Noble Agar solution in double distilled water, and autoclave (typically 200 mL in a 500 mL bottle)
  - Let the autoclaved agar solution cool to about 40° C (in a water bath)
  - Add the 2X F/2 solution, mix and add vitamins
  - Pour plates
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**Artificial Sea-Water:**For 1000 mL H<sub>2</sub>O milliQ:

NaCl		23,38 g
MgSO <sub>4</sub> 7H <sub>2</sub> O		4,93 g
CaCl <sub>2</sub> 2H <sub>2</sub> O		1,47 g
KBr		0,20 g
KCl		0,75 g
MgCl <sub>2</sub> 6H <sub>2</sub> O	4,1 g	
Borate Stock (SW1)		1.0 mL
Nitrate Stock (SW2)		1.0 mL
Tris Stock (SW3)		5.0 mL

Adjust pH to about 8.0

**Borate Stock SW1:**

for 200 mL distilled wayer

H <sub>3</sub> BO <sub>3</sub>	2,46 g
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**Nitrate Stock SW2:**

for 200 mL distilled wayer

NaNO <sub>3</sub>	15 g
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**TRIS Stock SW3:**

for 200 mL distilled wayer

TRIS hydrochloride,	7.29 g
TRIZMA base	2.71 g

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