

L1 medium from Karas et al.

combine: 1L Aquil salts, 2 mL NP stock, 1 mL ^{f/2 or} L1 trace metals stock,
0.5 mL f/2 vitamin solution → filter sterilize (0.2 μm filter)
→ plates: 1 part sterilized L1, 1 part 2% agar

1. Aquil salts → 2 separate solutions - anhydrous and hydrous salts - are made at 2x strength and mixed to make Aquil salts

anhydrous salts (500 mL HQ)
(1000 mL HQ)

NaCl	24.5g	49g
Na ₂ SO ₄	4.09g	8.18g
KCl	0.7g	1.4g
NaHCO ₃	0.2g	0.4g
KBr	0.1g	0.2g

H₃BO₃
NaF

0.03g (3 mL 10^{mg}/mL stock) 0.06g
9.003g (300 μL 10^{mg}/μL stock) 0.0006g

10x more than NCMA? - is this a typo?

hydrous salts (500 mL HQ)
(1000 mL HQ)

HgCl ₂ × 6H ₂ O	11.1g	22.2g
CaCl ₂ × 2H ₂ O	1.54g	3.08g

SrCl₂ × 6H₂O 2. 0.0170g (NCMA Aquil)
0.034g

Karas et al. didn't add it at all → why?
→ is this a typo?

or microclaved seawater

2. NP stock (2 mL/L)

NaNO₃ 37.5g / 100 mL → 375g/L (5x more than NCMA)

NaH₂PO₄ × H₂O 2.5g / 100 mL → 25g/L (5x more than NCMA)

3. L1 trace metals* → mix-up the following for 1L 1000x stock (1 mL/L)

FeCl₃ × 6H₂O 3.15g

Na₂EDTA × 2H₂O 4.36g

CuSO₄ × 5H₂O (9.8g/L) 0.25 mL

Na₂MoO₄ × 2H₂O (6.3g/L) 3.0 mL

ZnSO₄ × 7H₂O (22g/L) 1.0 mL

CoCl₂ × 6H₂O (10g/L) 1.0 mL

MnCl₂ × 4H₂O (180g/L) 1.0 mL

H₂SeO₃ (1.3g/L) 1.0 mL

NiSO₄ × 6H₂O (2.7g/L) 1.0 mL

Na₃VO₄ (1.84g/L) 1.0 mL

K₂CrO₄ (1.94g/L) 1.0 mL

same as NCMA recipe

some stocks different than NCMA, but overall almost the same composition.

4. f/2 vitamin solution (^{0.5}~~1~~ mL/L) → decided to keep 1 mL/L vitamins
unclear if our
recipe 2x less since we're
adding 1 mL/L instead of 0.5 mL/L which
is what NCMA recipes require

thiamine - HCl 200mg/L

biotin (0.1g/L) 10 mL/L

cyanocobalamin (1g/L) 1 mL/L