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ASW+NO3 medium

Roscoff Culture Collection[1]

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ABSTRACT

Medium used for cyanobacteria based on artificial seawater (ASW)

1

- Dissolve 25 g of NaCl in MilliQ water
- To this solution, add :

Quantity	*Compound*	*Stock Solution*	*Concentration in medium (in mM)*	
mLstock /LASW	*g/LASW*			
10	0,75	Sodium nitrate (NaNO3)	75 g/L	8.8
10	2	Magnesium chloride hexahydrate (MgCl26H2O)	200 g/L	9.8
5	0,5	Potassium chloride (KCl)	100 g/L	6,7
5	0,5	Calcium chloride (CaCl2)	100 g/L	4.5
10	3,5	Magnesium sulfate heptahydrate (MgSO47H2O)	350 g/L	14.2
5,5	1,1	TRIS-Base	200 g/L	9.08
2,5	0,03	Dipotassium phosphate (K2HPO4)	12 g/L	0.172

- Adjust the pH to 8 with concentrated HCl
- Adjust to 999 mL with milliQ water
- Add 1 mL of trace metals (see receipe below)
- Autoclave the medium

Trace metal stock solution

2 ▪ Dissolve all these components separately in milliQ water :

Quantity	*Compound*
2.86g	Boric acid (H3BO3)
1.81g	Manganese (II) chloride tetrahydrate (MnCl2-4H2O)
0.222g	Zinc sulfate monohydrate (ZnSO4-H2O)
0.390g	Sodium molybdate dihydrate (Na2MoO4-2H2O)
0.008g	Copper sulfate pentahydrate (CuSO4-5H2O)
0.0494g	Cobalt nitrate hexahydrate (Co(NO3)2-6H2O)
3.0g	Ferric chloride hexahydrate (FeCl-6H2O)
0.5g	EDTA magnesium disodium (EDTA(Na2Mg))

- Combine the various solutions after full dissolution
- Make final volume up to 1L with milliQ
- Store in refrigerator