

946a: CALDITHRIX MEDIUM

Synthetic seawater (2 x conc.)	500.00	ml
NH ₄ Cl	0.33	g
KH ₂ PO ₄	0.33	g
Modified Wolin's mineral solution	10.00	ml
Sodium resazurin (0.1% w/v)	0.50	ml
Na ₂ CO ₃	1.00	g
Yeast extract (OXOID)	3.00	g
Wolin's vitamin solution (10x)	1.00	ml
Na ₂ S x 9 H ₂ O	0.60	g
Distilled water	500.00	ml

Dissolve ingredients (except carbonate, yeast extract, vitamins and sulfide), then sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 - 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Prior to inoculation add carbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas atmosphere and yeast extract, vitamins and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas. Vitamins are sterilized by filtration. Adjust pH of complete medium to 6.8, if necessary.

For DSM 21940: Supplement medium after autoclaving with 1.50 g/l NaNO₃ added from a sterile anoxic stock solution.

For DSM 101605: Reduce amount of yeast extract to 0.10 g/l. Supplement medium after autoclaving with 2.00 g/l Na-acetate and 1.00 g/l NaNO₃ added from sterile anoxic stock solutions.

Modified Wolin's mineral solution (from medium 141)

Nitrolotriacetic acid	1.50	g
MgSO ₄ x 7 H ₂ O	3.00	g
MnSO ₄ x H ₂ O	0.50	g
NaCl	1.00	g
FeSO ₄ x 7 H ₂ O	0.10	g
CoSO ₄ x 7 H ₂ O	0.18	g
CaCl ₂ x 2 H ₂ O	0.10	g
ZnSO ₄ x 7 H ₂ O	0.18	g
CuSO ₄ x 5 H ₂ O	0.01	g
AlK(SO ₄) ₂ x 12 H ₂ O	0.02	g
H ₃ BO ₃	0.01	g
Na ₂ MoO ₄ x 2 H ₂ O	0.01	g
NiCl ₂ x 6 H ₂ O	0.03	g
Na ₂ SeO ₃ x 5 H ₂ O	0.30	mg
Na ₂ WO ₄ x 2 H ₂ O	0.40	mg

Distilled water	1000.00	ml
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First dissolve nitrilotriacetic acid and adjust pH to 6.5 with KOH, then add minerals. Adjust final to pH 7.0 with KOH.

Synthetic seawater (2 x conc.) (from medium 795)

NaCl	55.40	g
SrCl ₂ x 6 H ₂ O	0.03	g
MgSO ₄ x 7 H ₂ O	14.00	g
KI	0.10	mg
MgCl ₂ x 6 H ₂ O	11.00	g
Na ₃ -citrate	20.00	mg
KCl	1.30	g
CaCl ₂ x 2 H ₂ O	1.50	g
NaBr	0.20	g
H ₃ BO ₃	0.06	g
Distilled water	1000.00	ml

Wolin's vitamin solution (10x) (from medium 120)

Biotin	20.00	mg
Folic acid	20.00	mg
Pyridoxine hydrochloride	100.00	mg
Thiamine HCl	50.00	mg
Riboflavin	50.00	mg
Nicotinic acid	50.00	mg
Calcium D-(+)-pantothenate	50.00	mg
Vitamin B ₁₂	1.00	mg
p-Aminobenzoic acid	50.00	mg
(DL)-alpha-Lipoic acid	50.00	mg
Distilled water	1000.00	ml