

1101: DESULFONATRONOSPIRA MEDIUM

This recipe contains strain-specific modifications for *Desulfonatronospira delicata* DSM 19491 *

Final pH: 10.0

Final volume: 1003 ml

NaCl	15.00	g
K ₂ HPO ₄	0.50	g
NaHCO ₃	15.00	g
Na ₂ CO ₃	95.00	g
NH ₄ Cl	0.20	g
MgCl ₂ x 6 H ₂ O	0.20	g
Trace elements solution (Pfennig & Lippert,1966)	1.00	ml
Selenite-tungstate solution	1.00	ml
Yeast extract	0.05	g
Na-L lactate	2.20	g
Na₂SO₃	1.30	g
Wolin's vitamin solution (10x)	1.00	ml
Na ₂ S x 9 H ₂ O	0.24	g
Sodium Thiosulfate	5.00	g
Sodium pyruvate	2.20	g
Distilled water	1000.00	ml

Dissolve sodium chloride and hydrogenphosphate, then sparge solution with 100% N₂ gas for 30 -45 min to make it anoxic. Add and dissolve carbonates, adjust pH to 10, dispense under 100% N₂ gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. After sterilization add ammonium chloride, magnesium chloride, trace elements, yeast extract, lactate, sulfite, vitamins, and sulfide from sterile anoxic stock solution prepared under 100% N₂ gas. Stock solutions of sulfite (freshly prepared) and vitamins should be sterilized by filtration.

* Replace sulfite with 5.00 g/l sodium thiosulfate and lactate with 2.20 g/l sodium pyruvate.

Trace elements solution (Pfennig & Lippert,1966) (from medium 1369)

EDTA	5.00	g
FeSO ₄ x 7 H ₂ O	2.20	g
ZnSO ₄ x 7 H ₂ O	0.10	g
MnCl ₂ x 4 H ₂ O	0.03	g
H ₃ BO ₃	0.03	g
CoCl ₂ x 6 H ₂ O	0.20	g
CuCl ₂ x 2 H ₂ O	0.03	g

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NiCl ₂ x 6 H ₂ O	0.03	g
Na ₂ MoO ₄ x 2 H ₂ O	0.03	g
Distilled water	1000.00	ml

pH 3.0-4.0

Selenite-tungstate solution (from medium 385)

NaOH	0.50	g
Na ₂ SeO ₃ x 5 H ₂ O	3.00	mg
Na ₂ WO ₄ x 2 H ₂ O	4.00	mg
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