

784: NATRONIELLA MEDIUM

This recipe contains strain-specific modifications for *Natronaerobaculum magadiense* DSM 24923 *

Final pH: 9.5 - 10.0

Final volume: 1007 ml

KH ₂ PO ₄	0.20	g
MgCl ₂ x 6 H ₂ O	0.10	g
NH ₄ Cl	1.00	g
KCl	0.20	g
NaCl	16.00	g
Trace element solution SL-11	1.00	ml
Yeast extract	2.00	g
Sodium resazurin (0.1% w/v)	0.50	ml
Na ₂ CO ₃	68.00	g
NaHCO ₃	38.00	g
Ethanol absolute	5.00	ml
Wolin's vitamin solution (10x)	1.00	ml
Na ₂ S x 9 H ₂ O	1.00	g
Na ₂ S ₂ O ₃ x 5 H ₂ O	2.50	g
Distilled water	1000.00	ml

Dissolve ingredients except carbonate, bicarbonate, ethanol, vitamins and sulfide. Sparge medium with 100% N₂ gas for 30 - 45 min to make it anoxic. Add and dissolve carbonates and sulfide while gassing the head space only. Dispense under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Before use add ethanol and vitamins from sterile anoxic stock solution prepared under 100% N₂ gas. Vitamins are sterilized by filtration. Adjust pH of the complete medium to 9.5 - 10.0, if necessary.

* Omit ethanol and add to the autoclaved medium 2.5 g/l Na₂S₂O₃ x 5 H₂O from an anoxic stock solution prepared under 100% N₂ gas atmosphere and sterilized by filtration. Increase amount of yeast extract to 2.00 g/l.

Trace element solution SL-11 (from medium 722)

Na ₂ -EDTA x 2 H ₂ O	5.20	g
FeCl ₂ x 4 H ₂ O	1.50	g
ZnCl ₂	70.00	mg
MnCl ₂ x 4 H ₂ O	100.00	mg
H ₃ BO ₃	6.00	mg
CoCl ₂ x 6 H ₂ O	190.00	mg
CuCl ₂ x 2 H ₂ O	2.00	mg
NiCl ₂ x 6 H ₂ O	24.00	mg

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Na ₂ MoO ₄ x 2 H ₂ O	36.00	mg
Distilled water	1000.00	ml

Dissolve EDTA in 800 ml distilled water, adjust pH to 7 using 2 N NaOH and add ferrous chloride. After ferrous chloride has dissolved add other compounds. Finally adjust pH to 6.0 and bring volume to 1000 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