

135c. MOORELLA THERMOAUTOTROPHICA MEDIUM

NH ₄ Cl	1.00	g
KH ₂ PO ₄	0.33	g
K ₂ HPO ₄	0.45	g
MgSO ₄ x 7 H ₂ O	0.10	g
Trace element solution (see medium 141)	20.00	ml
Yeast extract	2.00	g
Na-resazurin solution (0.1% w/v)	0.50	ml
NaHCO ₃	1.00	g
D-Fructose	10.00	g
Vitamin solution (see medium 141)	10.00	ml
L-Cysteine-HCl x H ₂ O	0.50	g
Na ₂ S x 9 H ₂ O	0.50	g
Distilled water	1000.00	ml

Dissolve ingredients except bicarbonate, fructose, vitamins, cysteine and sulfide. Sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 – 45 min to make it anoxic, then dispense under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Add fructose, vitamins, cysteine and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas and bicarbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas mixture. The pH of the complete medium should be at 6.5.

Note: For autotrophic growth fructose is omitted and a gas atmosphere of 80% H₂ and 20% CO₂ is used.