

684. SYNTROPHOBACTER (MPOB) MEDIUM

Na ₂ HPO ₄ x 2 H ₂ O	0.53	g
KH ₂ PO ₄	0.41	g
NH ₄ Cl	0.30	g
CaCl ₂ x 2 H ₂ O	0.11	g
MgCl ₂ x 6 H ₂ O	0.10	g
NaCl	0.30	g
Trace element solution SL-10 (see medium 320)	1.00	ml
Selenite-tungstate solution (see medium 385)	1.00	ml
Yeast extract	0.20	g
Na-resazurin solution (0.1% w/v)	0.50	ml
NaHCO ₃	4.00	g
Vitamin solution (see medium 141)	10.00	ml
Na ₂ -fumarate	3.20	g
Na ₂ S x 9 H ₂ O	0.50	g
Distilled water	1000.00	ml

Dissolve ingredients (except bicarbonate, vitamins, fumarate and sulfide) and 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. After autoclaving complete the medium by adding vitamins, fumarate 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 atmosphere. Stock solutions of vitamins and fumarate are sterilized by filtration. Adjust pH of the complete medium to 7.0 - 7.2. After inoculation pressurize culture vials to 0.7 bar overpressure with sterile 80% N₂ and 20% CO₂ gas mixture.

Note: A white precipitate forms in this medium after autoclaving, which has however no negative effect on growth.

For DSM 14055 replace Na₂-fumarate with 2.50 g/l Na-pyruvate added after autoclaving from a sterile anoxic solution prepared under 100% N₂ gas atmosphere.

For DSM 14823 replace Na₂-fumarate with 5.00 g/l glucose. Sterilize glucose separately by filtration under 100% N₂ gas atmosphere. Reduce amount of NaHCO₃ to 2.00 g/l and adjust pH to 6.5 – 6.8.

For DSM 17232 replace Na₂-fumarate with 2.00 ml/l methanol added after autoclaving from a sterile anoxic stock solution prepared under 100% N₂ gas atmosphere.

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For DSM 27333 replace Na₂-fumarate with 2.30 g/l glycerol added after autoclaving from a sterile anoxic solution prepared under 100% N₂ gas atmosphere. Adjust pH of complete medium to 7.5.

For DSM 29728 adjust pH of complete medium to 6.8.

For DSM 103119 replace Na₂-fumarate with 3.2 g/l sucrose added after autoclaving from a sterile anoxic solution prepared under 100% N₂ gas atmosphere. Adjust pH of complete medium to 7.5.