311c. SPOROMUSA ACIDOVOBANS MEDIUM

NH₄Cl 0.50 g
MgSO₄ x 7 H₂O 0.50 g
CaCl₂ x 2 H₂O 0.25 g
NaCl 2.25 g
FeSO₄ x 7 H₂O solution (0.1% w/v in 0.1 N H₂SO₄) 2.00 ml
Trace element solution SL-10 (see medium 320) 1.00 ml
Selenite-tungstate solution (see medium 385) 1.00 ml
Yeast extract 2.00 g
Casitone 2.00 g
Na-resazurin solution (0.1% w/v) 0.50 ml
K₂HPO₄ 0.35 g
KH₂PO₄ 0.23 g
Na₂CO₃ 1.00 g
D-Fructose 5.00 g
Vitamin solution (see medium 141) 10.00 ml
L-Cysteine-HCl x H₂O 0.30 g
Na₂S x 9 H₂O 0.30 g
Distilled water 1000.00 ml

Dissolve ingredients (except phosphates, carbonate, fructose, vitamins, cysteine 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 add phosphates, fructose, vitamins, cysteine and sulfide to the medium from sterile anoxic stock solutions prepared under 100% N₂ gas and carbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas mixture. Stock solutions of fructose and vitamins should be sterilized by filtration. Adjust pH of complete medium to pH 6.5 – 7.0, if necessary.

For DSM 4440 replace fructose with 1.35 g/l betaine as substrate; cysteine and sulfide must be replaced by 0.15 g/l DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.

For DSM 6539, DSM 6540 and DSM 17108 replace fructose with 2.00 g/l D-glucose added to the autoclaved medium from a filter-sterilized anoxic stock solution. Cysteine and sulfide must be replaced by 0.15 g/l DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.

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For DSM 14980 replace fructose with 8.00 g/l D-glucose and 2.00 g/l Na-pyruvate as substrates added to the autoclaved medium from filter-sterilized anoxic stock solutions.

For DSM 16652 replace fructose with 1.11 g/l N-acetyl-D-glucosamine as substrate added to the autoclaved medium from a filter-sterilized anoxic stock solution.

For DSM 17189 and DSM 17285 replace fructose with 3.60 g/l D-mannitol as substrate added to the autoclaved medium from a filter-sterilized anoxic stock solution. Cysteine and sulfide must be replaced by 0.30 g/l DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.

For DSM 26537 replace fructose with 5.00 g/l D-glucose as substrate added to the autoclaved medium from a filter-sterilized anoxic stock solution. Adjust pH of completed medium to 7.8 using a sterile anoxic stock solution of 5% (w/v) Na₂CO₃.

For DSM 26827 replace fructose with 2.50 g/l Na-(DL)-lactate added to the autoclaved medium from a separately sterilized anoxic stock solution. Cysteine and sulfide must be replaced by 0.15 g/l DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.