Microorganisms



311c: SPOROMUSA ACIDOVORANS MEDIUM

| NH ₄ Cl | 0.50 | g |
|---|---------|----|
| $MgSO_4 \times 7 H_2O$ | 0.50 | g |
| CaCl ₂ x 2 H ₂ O | 0.25 | g |
| NaCl | 2.25 | g |
| $FeSO_4 \times 7 H_2O (0.1\% \text{ w/v in } 0.1 \text{ N } H_2SO_4)$ | 2.00 | ml |
| Trace element solution SL-10 | 1.00 | ml |
| Selenite-tungstate solution | 1.00 | ml |
| Yeast extract | 2.00 | g |
| Casitone | 2.00 | g |
| Sodium resazurin (0.1% w/v) | 0.50 | ml |
| K ₂ HPO ₄ | 0.35 | g |
| KH ₂ PO ₄ | 0.23 | g |
| Na ₂ CO ₃ | 1.00 | g |
| D-Fructose | 5.00 | g |
| Wolin's vitamin solution (10x) | 1.00 | ml |
| L-Cysteine HCl x H ₂ O | 0.30 | g |
| $Na_2S \times 9 H_2O$ | 0.30 | g |
| Distilled water | 1000.00 | ml |

Dissolve ingredients (except phosphates, carbonate, fructose, vitamins, cysteine and sulfide) and sparge medium with $80\%~N_2$ and $20\%~CO_2$ 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 $100\%~N_2$ gas and carbonate from a sterile anoxic stock solution prepared under $80\%~N_2$ and $20\%~CO_2$ 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 <u>DSM 4440</u>: 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 <u>DSM 6539</u>, <u>DSM 6540</u>, <u>DSM 17108</u>: 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.

For <u>DSM 11501</u>: Supplement medium with 0.30 g DL-Dithiothreitol and 20 ml/l methanol (50% v/v). Omit D-fructose, $Na_2S \times 9 H_2O$, and L-Cysteine HCl $\times H_2O$. After inoculation, add 1 bar overpressure of sterile 80% H_2 and 20% CO_2 gas mixture.

For <u>DSM 14980</u>: 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.

Microorganisms

311c: SPOROMUSA ACIDOVORANS MEDIUM



For <u>DSM 16652</u>: 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 <u>DSM 17189</u>, <u>DSM 17285</u>: 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 <u>DSM 26537</u>: 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 <u>DSM 26827</u>: 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.

Trace element solution SL-10 (from medium 320)

| HCI (25%) | 10.00 | ml |
|--|--------|----|
| FeCl ₂ x 4 H ₂ O | 1.50 | g |
| ZnCl ₂ | 70.00 | mg |
| $MnCl_2 \times 4 H_2O$ | 100.00 | mg |
| H_3BO_3 | 6.00 | mg |
| CoCl ₂ x 6 H ₂ O | 190.00 | mg |
| CuCl ₂ x 2 H ₂ O | 2.00 | mg |
| $NiCl_2 \times 6 H_2O$ | 24.00 | mg |
| $Na_2MoO_4 \times 2 H_2O$ | 36.00 | mg |
| Distilled water | 990.00 | ml |
| | | |

First dissolve $FeCl_2$ in the HCl, then dilute in water, add and dissolve the other salts. Finally make up to 1000.00 ml.

Selenite-tungstate solution (from medium 385)

| NaOH | 0.50 | g |
|---------------------------|---------|----|
| $Na_2SeO_3 \times 5 H_2O$ | 3.00 | mg |
| $Na_2WO_4 \times 2 H_2O$ | 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 HCI | 50.00 | mg |
| Riboflavin | 50.00 | ma |

Microorganisms

311c: SPOROMUSA ACIDOVORANS MEDIUM



| 50.00 | mg |
|---------|---------------------------------|
| 50.00 | mg |
| 1.00 | mg |
| 50.00 | mg |
| 50.00 | mg |
| 1000.00 | ml |
| | 50.00 1.00 50.00 50.00 |