## 311c: SPOROMUSA ACIDOVORANS MEDIUM

| $\mathrm{NH}_{4} \mathrm{Cl}$ | 0.50 | g |
| :---: | :---: | :---: |
| $\mathrm{MgSO}_{4} \times 7 \mathrm{H}_{2} \mathrm{O}$ | 0.50 | g |
| $\mathrm{CaCl}_{2} \times 2 \mathrm{H}_{2} \mathrm{O}$ | 0.25 | g |
| NaCl | 2.25 | g |
| $\mathrm{FeSO}_{4} \times 7 \mathrm{H}_{2} \mathrm{O}\left(0.1 \%\right.$ w/v in $0.1 \mathrm{NH}_{2} \mathrm{SO}_{4}$ ) | 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 |
| $\mathrm{K}_{2} \mathrm{HPO}_{4}$ | 0.35 | g |
| $\mathrm{KH}_{2} \mathrm{PO}_{4}$ | 0.23 | g |
| $\mathrm{Na}_{2} \mathrm{CO}_{3}$ | 1.00 | g |
| D-Fructose | 5.00 | g |
| Wolin's vitamin solution (10x) | 1.00 | ml |
| L-Cysteine $\mathrm{HCl} \times \mathrm{H}_{2} \mathrm{O}$ | 0.30 | g |
| $\mathrm{Na}_{2} \mathrm{~S} \times 9 \mathrm{H}_{2} \mathrm{O}$ | 0.30 | g |
| Distilled water | 1000.00 | ml |

Dissolve ingredients (except phosphates, carbonate, fructose, vitamins, cysteine and sulfide) and sparge medium with $80 \% \mathrm{~N}_{2}$ and $20 \% \mathrm{CO}_{2}$ 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 $100 \% \mathrm{~N}_{2}$ gas and carbonate from a sterile anoxic stock solution prepared under $80 \% \mathrm{~N}_{2}$ and $20 \% \mathrm{CO}_{2}$ 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 DSM 4440: Replace fructose with $1.35 \mathrm{~g} / \mathrm{l}$ betaine as substrate; cysteine and sulfide must be replaced by $0.15 \mathrm{~g} / \mathrm{I}$ DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.

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

For DSM 11501: Supplement medium with 0.30 g DL-Dithiothreitol and $20 \mathrm{ml} / \mathrm{l}$ methanol ( $50 \% \mathrm{v} / \mathrm{v}$ ). Omit D-fructose, $\mathrm{Na}_{2} \mathrm{~S} \times 9 \mathrm{H}_{2} \mathrm{O}$, and L-Cysteine $\mathrm{HCl} \times \mathrm{H}_{2} \mathrm{O}$. After inoculation, add 1 bar overpressure of sterile $80 \% \mathrm{H}_{2}$ and $20 \% \mathrm{CO}_{2}$ gas mixture.

For DSM 14980: Replace fructose with $8.00 \mathrm{~g} / \mathrm{I}$ D-glucose and $2.00 \mathrm{~g} / \mathrm{l}$ Na-pyruvate as substrates added to the autoclaved medium from filter-sterilized anoxic stock solutions.

## Microorganisms

## DSMZ

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For DSM 16652: Replace fructose with $1.11 \mathrm{~g} / \mathrm{I} \mathrm{N}$-acetyl-D-glucosamine as substrate added to the autoclaved medium from a filter-sterilized anoxic stock solution.

For DSM 17189, DSM 17285: Replace fructose with $3.60 \mathrm{~g} / \mathrm{I}$ D-mannitol as substrate added to the autoclaved medium from a filter-sterilized anoxic stock solution. Cysteine and sulfide must be replaced by $0.30 \mathrm{~g} / \mathrm{I}$ DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.

For DSM 26537: Replace fructose with $5.00 \mathrm{~g} / \mathrm{I}$ 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 $5 \%(w / v) \mathrm{Na}_{2} \mathrm{CO}_{3}$.

For DSM 26827: Replace fructose with $2.50 \mathrm{~g} / \mathrm{INa}$-(DL)-lactate added to the autoclaved medium from a separately sterilized anoxic stock solution. Cysteine and sulfide must be replaced by $0.15 \mathrm{~g} / \mathrm{I}$ DL-dithiothreitol (DTT) added from an anoxic stock solution sterilized by filtration.

Trace element solution SL-10 (from medium 320)

| $\mathrm{HCl}(25 \%)$ | 10.00 | ml |
| :--- | ---: | ---: |
| $\mathrm{FeCl}_{2} \times 4 \mathrm{H}_{2} \mathrm{O}$ | 1.50 | g |
| $\mathrm{ZnCl}_{2} \times 4 \mathrm{H}_{2} \mathrm{O}$ | 70.00 | mg |
| $\mathrm{MnCl}_{2} \times 4$ |  |  |
| $\mathrm{H}_{3} \mathrm{BO}_{3}$ | 100.00 | mg |
| $\mathrm{CoCl}_{2} \times 6 \mathrm{H}_{2} \mathrm{O}$ | 6.00 | mg |
| $\mathrm{CuCl}_{2} \times 2 \mathrm{H}_{2} \mathrm{O}$ | 190.00 | mg |
| $\mathrm{NiCl}_{2} \times 6 \mathrm{H}_{2} \mathrm{O}$ | 2.00 | mg |
| $\mathrm{Na}_{2} \mathrm{MoO}_{4} \times 2 \mathrm{H}_{2} \mathrm{O}$ | 24.00 | mg |
| Distilled water | 36.00 | mg |

First dissolve $\mathrm{FeCl}_{2}$ 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 |
| $\mathrm{Na}_{2} \mathrm{SeO}_{3} \times 5 \mathrm{H}_{2} \mathrm{O}$ | 3.00 | mg |
| $\mathrm{Na}_{2} \mathrm{WO}_{4} \times 2 \mathrm{H}_{2} \mathrm{O}$ | 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 HCl | 50.00 | mg |
| Riboflavin | 50.00 | mg |

## Microorganisms

DSMZ

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| 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 |

