

124: DESULFOFARCIMEN MEDIUM

This recipe contains strain-specific modifications for *Acetobacterium carbinolicum* DSM 2925 *

Final pH: 7.0 - 7.2

Final volume: 1003 ml

NaCl	1.17	g
MgCl ₂ x 6 H ₂ O	0.40	g
KCl	0.30	g
CaCl ₂ x 2 H ₂ O	0.15	g
NH ₄ Cl	0.27	g
KH ₂ PO ₄	0.20	g
Na ₂ SO ₄	2.84	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Yeast extract	1.00	g
Sodium resazurin (0.1% w/v)	0.50	ml
NaHCO ₃	4.50	g
Na-acetate	1.40	g
Na-butyrate	1.40	g
Wolin's vitamin solution (10x)	1.00	ml
Na ₂ S x 9 H ₂ O	0.40	g
Ethanol absolute	1.00	g
Distilled water	1000.00	ml

Dissolve ingredients (except bicarbonate, acetate, butyrate, vitamins, and sulfide) and sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 - 45 min to make it anoxic. Add and dissolve bicarbonate, adjust pH to 7.0, then dispense medium under 80% N₂ and 20% CO₂ gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Add acetate, butyrate, vitamins, and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas. The vitamin solution should be sterilized by filtration. Before use, check the complete medium's pH and adjust it to 7.0 - 7.2, if necessary.

* Replace acetate and butyrate with 1.00 g/l ethanol absolute added from a sterile anoxic stock solution after autoclaving.

Trace element solution SL-10 (from medium 320)

HCl (25%)	10.00	ml
FeCl ₂ x 4 H ₂ O	1.50	g
ZnCl ₂	70.00	mg
MnCl ₂ x 4 H ₂ O	100.00	mg
H ₃ BO ₃	6.00	mg
CoCl ₂ x 6 H ₂ O	190.00	mg

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$\text{CuCl}_2 \times 2 \text{H}_2\text{O}$	2.00	mg
$\text{NiCl}_2 \times 6 \text{H}_2\text{O}$	24.00	mg
$\text{Na}_2\text{MoO}_4 \times 2 \text{H}_2\text{O}$	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
$\text{Na}_2\text{SeO}_3 \times 5 \text{H}_2\text{O}$	3.00	mg
$\text{Na}_2\text{WO}_4 \times 2 \text{H}_2\text{O}$	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
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