

1250: DESULFOSPOROSINUS ACIDOPHILUS MEDIUM

This recipe contains strain-specific modifications for *Desulfosporosinus acididurans* DSM 27692 *

Final pH: * 5.5

Final volume: 1003 ml

(NH ₄) ₂ SO ₄	0.45	g
MgSO ₄ x 7 H ₂ O	0.50	g
KCl	0.05	g
Ca(NO ₃) ₂ x 4 H ₂ O	0.02	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Yeast extract	0.50	g
Sodium resazurin (0.1% w/v)	0.50	ml
KH ₂ PO ₄	10.00	g
Na ₂ HPO ₄	1.00	g
D-Fructose	3.50	g
Wolin's vitamin solution (10x)	1.00	ml
L-Cysteine HCl x H ₂ O	0.50	g
Na-DL-lactate	2.50	g
Distilled water	1000.00	ml

Dissolve ingredients (except phosphates, vitamins, fructose and cysteine) 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. Prepare a phosphate buffer stock solution with KH₂PO₄ (25% w/v) and Na₂HPO₄, adjust pH of the buffer to 5.8. Prior to inoculation add phosphate buffer, vitamins, fructose and cysteine from sterile anoxic stock solutions prepared under 100% N₂ gas. Vitamins and D-fructose should be sterilized by filtration. The pH of the complete medium should be at 5.8.

* Replace fructose with 2.50 g/l Na-DL-lactate and adjust pH of complete medium to 5.5.

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
CuCl ₂ x 2 H ₂ O	2.00	mg
NiCl ₂ x 6 H ₂ O	24.00	mg

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Na ₂ MoO ₄ x 2 H ₂ O	36.00	mg
Distilled water	990.00	ml

First dissolve FeCl₂ 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 ₂ SeO ₃ x 5 H ₂ O	3.00	mg
Na ₂ WO ₄ x 2 H ₂ 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