

837: DESULFUROMONAS PALMITATIS MEDIUM

Solution A	880.00	ml
Solution B	50.00	ml
Solution C	20.00	ml
Solution D	1.00	ml
Solution E	50.00	ml
Solution F	1.00	ml

1. Sparge solution A with 80% N₂ and 20% CO₂ gas mixture for 30 - 45 min to make it anoxic, distribute under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Solution B is autoclaved separately under 100% N₂ gas atmosphere. Solutions C and F are prepared under 80% N₂ and 20% CO₂ gas atmosphere. Solutions D and E are prepared under 100% N₂ gas atmosphere. Solution C is autoclaved and solutions D, E and F are sterilized by filtration. To complete the medium appropriate amounts of solutions B to F are added to the sterile solution A in the sequence as indicated. Adjust pH of complete medium to 6.9, if necessary.

2. Note: For transfers use 5 - 10% (v/v) inoculum.

Solution A

NaCl	20.80	g
KCl	0.77	g
NH ₄ Cl	1.00	g
KH ₂ PO ₄	0.10	g
MgSO ₄ x 7 H ₂ O	0.20	g
CaCl ₂ x 2 H ₂ O	0.02	g
Na-acetate x 3 H ₂ O	1.36	g
Modified Wolin's mineral solution	10.00	ml
Sodium resazurin (0.1% w/v)	0.50	ml
Distilled water	860.00	ml

Solution B

MgCl ₂ x 6 H ₂ O	10.60	g
CaCl ₂ x 2 H ₂ O	1.50	g
Distilled water	50.00	ml

Solution C

Na ₂ CO ₃	1.00	g
Distilled water	20.00	ml

837: DESULFUROMONAS PALMITATIS MEDIUM

Solution D

Wolin's vitamin solution (10x)	1.00	ml
--------------------------------	------	----

Solution E

Na ₂ -fumarate	8.00	g
Distilled water	50.00	ml

Solution F

Na-dithionite solution (5% w/v)	1.00	ml
---------------------------------	------	----

Modified Wolin's mineral solution (from medium 141)

Nitrilotriacetic acid	1.50	g
MgSO ₄ x 7 H ₂ O	3.00	g
MnSO ₄ x H ₂ O	0.50	g
NaCl	1.00	g
FeSO ₄ x 7 H ₂ O	0.10	g
CoSO ₄ x 7 H ₂ O	0.18	g
CaCl ₂ x 2 H ₂ O	0.10	g
ZnSO ₄ x 7 H ₂ O	0.18	g
CuSO ₄ x 5 H ₂ O	0.01	g
AlK(SO ₄) ₂ x 12 H ₂ O	0.02	g
H ₃ BO ₃	0.01	g
Na ₂ MoO ₄ x 2 H ₂ O	0.01	g
NiCl ₂ x 6 H ₂ O	0.03	g
Na ₂ SeO ₃ x 5 H ₂ O	0.30	mg
Na ₂ WO ₄ x 2 H ₂ O	0.40	mg
Distilled water	1000.00	ml

First dissolve nitrilotriacetic acid and adjust pH to 6.5 with KOH, then add minerals. Adjust final to pH 7.0 with KOH.

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

837: DESULFUROMONAS PALMITATIS MEDIUM

Distilled water	1000.00	ml
-----------------	---------	----

Na-dithionite solution (5% w/v) (from medium 829)

NaHCO ₃	50.00	g
Na ₂ S ₂ O ₄	50.00	g
Distilled water	1000.00	ml

Dissolve NaHCO₃ in water and make the solution anoxic by sparging with 80% N₂ and 20% CO₂ gas mixture. Then dissolve the Na-dithionite and filter sterilize the solution into anoxic Hungate tubes. Store the prepared solution in the dark and refrigerated. Prepare only small amounts of stock solution, as Na-dithionite decomposes rapidly.