

855: THAUERA AROMATICA MEDIUM (ANAEROB)

Solution A	952.00	ml
Solution B	10.00	ml
Solution C	10.00	ml
Solution D	30.00	ml
Solution E	1.00	ml

1. Solution A is sparged with 80% N₂ and 20% CO₂ gas mixture to reach a pH below 6 (at least 30 min), then distributed under the same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclaved. Solutions B and C are autoclaved separately under 100% N₂ gas. Solution D is autoclaved under 80% N₂ and 20% CO₂ gas atmosphere. Solution E is prepared under 100% N₂ gas atmosphere and sterilized by filtration. Solutions B to E are added to the sterile, cooled solution A in appropriate amounts in the sequence as indicated. Adjust pH of final medium to 7.2, if necessary.
2. For aerobic growth prepare medium under air. Omit carbonate and KNO₃. 3,5-Dihydroxybenzoic acid or Na-benzoate as substrate can be replaced with 10 mM Na-malate. Adjust medium pH to 7.2.

Solution A

Na ₂ SO ₄	3.00	g
KH ₂ PO ₄	0.20	g
NH ₄ Cl	0.30	g
NaCl	1.00	g
MgCl ₂ x 6 H ₂ O	0.40	g
KCl	0.50	g
CaCl ₂ x 2 H ₂ O	0.15	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Distilled water	950.00	ml

Solution B

3,5-Dihydroxybenzoic acid or Na-benzoate	0.60	g
Distilled water	10.00	ml

Solution C

KNO ₃	0.60	g
Distilled water	10.00	ml

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Solution D

Na ₂ CO ₃	1.50	g
Distilled water	30.00	ml

Solution E

Wolin's vitamin solution (10x)	1.00	ml
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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
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