

124. DESULFOTOMACULUM ACETOXIDANS MEDIUM

Solution A:

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 (see below)	1.00	ml
Na-acetate	1.40	g
Na-butyrate	1.40	g
Yeast extract	1.00	g
Vitamin solution (see below)	1.00	ml
Resazurin	0.50	mg
NaHCO ₃	4.50	g
Solution B	10.00	ml
Distilled water	1000.00	ml

Solution B:

Na ₂ S x 9 H ₂ O	0.36	g
Distilled water	10.00	ml

Trace element solution:

FeCl ₂ x 4 H ₂ O	1.50	g
ZnCl ₂	68.00	mg
MnCl ₂ x 4 H ₂ O	100.00	mg
H ₃ BO ₃	62.00	mg
CoCl ₂ x 6 H ₂ O	120.00	mg
CuCl ₂ x 2 H ₂ O	17.00	mg
NiCl ₂ x 6 H ₂ O	24.00	mg
Na ₂ MoO ₄ x 2 H ₂ O	24.00	mg
HCl, 0.05 molar	1000.00	ml

Vitamin solution (filter-sterilized):

p-Aminobenzoic acid	4.00	mg
D(+)-Biotin	1.00	mg
Thiamine-HCl x 2 H ₂ O	10.00	mg
Distilled water	100.00	ml

Components (except sodium bicarbonate, sulfide and vitamins) of part A are dissolved. The solution is boiled for a few minutes and then cooled to room temperature while being flushed with an oxygen-free 80% N₂ + 20% CO₂ gas mixture. Sodium bicarbonate is added and gassing continued until an equilibrium pH of 6.9 - 7.1 is reached. The medium is tubed anaerobically under 80% N₂ + 20% CO₂ and autoclaved. Sodium sulfide solution (part B) is autoclaved separately under 100% N₂. Before inoculation the medium is completed by adding the appropriate amounts each of sterile vitamin and

sulfide solution. Final pH of the complete medium is 7.0 - 7.2.