

ATCC medium: 1553 Alginate utilization medium

Solution A:

NaCl.....27.5 g
MgSO₄ . 6H₂O6.78 g
MgCl₂ . 6H₂O5.38 g
CaCl₂ . 2H₂O1.4 g
KCl.....0.72 g
NaHCO₃.....0.2 g
NaNO₃.....47.0 mg
Tris HCl.....67.0 mg
alpha-Sodium glycerophosphate.....6.67 mg
Distilled water.....500.0 ml

Autoclave Solution A at 121C for 15 minutes. Cool to 50C and aseptically add Solutions C and D. Then Aseptically add this solution to Solution B. For liquid medium omit agar, reduce sodium alginate to 1.0 g/L, calcium chloride to 0.14 g/L, magnesium chloride to 0.538 g/L and magnesium sulfate to 0.678 g/L.

Solution B:

Sodium alginate.....10.0 g
Agar (if needed).....20.0 g
Distilled water.....480.0 ml

Solution C:

Wolfe's Mineral Solution (see below)....10.0 ml

Filter-sterilize.

Solution D:

Vitamin B12.....1.3 mcg
Thiamine . HCl.....67.0 mcg
Biotin.....0.67 mcg
Distilled water.....10.0 ml

Filter-sterilize.

Wolfe's Mineral Solution:

Available from ATCC as a sterile ready-to-use liquid (Trace Mineral Supplement, catalog no. MD-TMS.)

Nitrilotriacetic acid.....	1.5 g
MgSO ₄ . 7H ₂ O	3.0 g
MnSO ₄ . H ₂ O	0.5 g
NaCl.....	1.0 g
FeSO ₄ . 7H ₂ O	0.1 g
CoCl ₂ . 6H ₂ O	0.1 g
CaCl ₂	0.1 g
ZnSO ₄ . 7H ₂ O	0.1 g
CuSO ₄ . 5H ₂ O	0.01 g
AlK(SO ₄) ₂ . 12H ₂ O.....	0.01 g
H ₃ BO ₃	0.01 g
Na ₂ MoO ₄ . 2H ₂ O.....	0.01 g
Distilled water.....	1.0 L

Add nitrilotriacetic acid to approximately 500 ml of water and adjust to pH 6.5 with KOH to dissolve the compound. Bring volume to 1.0 L with remaining water and add remaining compounds one at a time.