

ATCC medium: 1283 Medium for sulfate reducers

Part A:

Na₂SO₄3.0 g
KH₂PO₄0.2 g
NH₄Cl0.3 g
NaCl.....1.0 g
MgCl₂ . 6H₂O0.4 g
KCl.....0.5 g
CaCl₂ . 2H₂O0.15 g
Distilled water.....870.0 ml

Part B, Trace Element Solution SL-7:

Hydrochloric acid, 25%.....10.0 ml
FeCl₂ . 4H₂O1.5 g
CoCl₂ . 6H₂O190.0 mg
MnCl₂ . 4H₂O100.0 mg
ZnCl₂70.0 mg
H₃BO₃62.0 mg
Na₂MoO₄ . 2H₂O.....36.0 mg
NiCl₂ . 6H₂O24.0 mg
CuCl₂ . 2H₂O17.0 mg
Distilled water.....1.0 L

Dissolve the FeCl₂ . 4H₂O in the concentrated HCl, then dilute.
Use 1.0 ml/L of medium.

Part C:

NaHCO₃5.0 g
Distilled water.....100.0 ml

Part D:

Sodium butyrate.....0.7 g
Sodium caproate.....0.3 g
Sodium octanoate.....0.15 g
Distilled water.....10.0 ml

Part E:

Yeast extract.....1.0 g
p-Aminobenzoic acid.....40.0 mcg
D(+)-biotin.....10.0 mcg
Thiamine . HCl.....100.0 mcg
Distilled water.....10.0 ml

Part F:

Na₂S . 9H₂O0.4 g
Distilled water.....10.0 ml

Prepare and autoclave Part A anaerobically under 90% N₂, 10% CO₂.
Autoclave Parts B, D, E, and F separately under nitrogen. Filter-sterilize part C and flush with 80% N₂, 20% CO₂ to remove dissolved oxygen. Add Parts B through F to the sterile, cooled Part A in the sequence indicated. Distribute the completed medium anaerobically under 80% N₂, 20% CO₂ into appropriate vessels. Adjust final pH of the medium to 7.7.