

ATCC medium: 1966 Soil seawater medium for algae

Prepare sterile batches of ATCC Media 1405 and 1900 separately (see below). Aseptically combine cooled solutions, using three parts Medium 1405 to one part Medium 1900.

ATCC Medium 1405:

Natural seawater.....1.0 L
Enrichment Solution (see below)...10.0 ml
Vitamin Solution (see below).....1.0 ml

Filter-sterilize 2-month-old seawater. Aseptically combine above components.

Enrichment Solution:

EDTA . 2H₂O.....0.553 g
NaNO₃.....4.667 g
Na₂SiO₃ . 9H₂O.....3.0 g
Sodium glycerophosphate.....0.667 g
H₃BO₃0.380 g
Fe(NH₄)₂(SO₄)₂ . 6H₂O0.234 g
FeCl₃ . 6H₂O0.016 g
MnSO₄ . 4H₂O0.054 g
ZnSO₄ . 7H₂O7.3 mg
CoSO₄ . 7H₂O1.6 mg
Distilled water.....1.0 L

Neutralize Na₂SiO₃ with N HCl. Combine ingredients in order listed. Filter-sterilize.

Vitamin Solution:

Thiamine.....0.1 g
Vitamin B12.....2.0 mg
Biotin.....1.0 mg
Distilled water.....1.0 L

Filter-sterilize.

ATCC Medium 1900:

Soil Extract Stock (see below), 625.0 ml
Solution 1 (see below), 125.0 ml
Solution 2 (see below), 125.0 ml
Solution 3 (see below), 125.0 ml

Mix all components and filter-sterilize.

Soil Extract Stock:

Air-dried sieved soil.....333.3 g
Distilled water.....666.7 ml

Adjust pH to 8.0 with N NaOH or HCl. Autoclave for 30 minutes. Allow soil to settle and decant. Pre-filter through cheese cloth to remove large particles.

Solution 1:

K_2HPO_4 1.0 g
Distilled water.....1.0 L

Solution 2:

$MgSO_4 \cdot 7H_2O$ 1.0 g
Distilled water.....1.0 L

Solution 3:

KNO_3 10.0 g
Distilled water.....1.0 L