

ATCC medium: 1964 *Desulfotomaculum acetoxidans* medium

Solution A:

| | |
|---|--------|
| NaCl..... | 1.17 g |
| MgCl ₂ . 6H ₂ O | 0.4 g |
| KCl..... | 0.3 g |
| CaCl ₂ . 2H ₂ O | 0.15 g |
| NH ₄ Cl | 0.27 g |
| KH ₂ PO ₄ | 0.2 g |
| Na ₂ SO ₄ | 2.84 g |
| Trace Element Solution SL-7 (see below) .. | 1.0 ml |
| Sodium acetate..... | 1.4 g |
| Sodium butyrate..... | 1.4 g |
| Yeast extract..... | 1.0 g |
| Resazurin..... | 0.5 mg |
| NaHCO ₃ | 4.5 g |
| Distilled water..... | 1.0 L |

Mix and dissolve all components of Solution A except sodium bicarbonate and heat to boiling. Cool to room temperature under a gas phase of 80% N₂, 20% CO₂. Add sodium bicarbonate and continue gassing with the same gas phase until an equilibrium of pH 6.9 - 7.1 is reached. Tube anaerobically under the same gas phase and autoclave at 121C for 15 minutes. Aseptically add Solutions B and C in appropriate amounts to each tube prior to inoculation. Final pH of completed medium 7.0 - 7.2.

Solution B:

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|---|---------|
| Na ₂ S . 9H ₂ O | 0.36 g |
| Distilled water..... | 10.0 ml |

Autoclave solution B at 121C for 15 minutes under 100% N₂.

Solution C:

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|--|---------|
| Wolfe's Vitamin Solution (see below).... | 10.0 ml |
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Filter-sterilize solution C and equilibrate under 100% N₂ before use.

Trace Element solution SL-7:

| | |
|---|----------|
| Hydrochloric acid, 25%..... | 10.0 ml |
| FeCl ₂ . 4H ₂ O | 1.5 g |
| CoCl ₂ . 6H ₂ O | 190.0 mg |
| MnCl ₂ . 4H ₂ O | 100.0 mg |
| ZnCl ₂ | 70.0 mg |
| H ₃ BO ₃ | 62.0 mg |
| Na ₂ MoO ₄ . 2H ₂ O..... | 36.0 mg |
| NiCl ₂ . 6H ₂ O | 24.0 mg |
| CuCl ₂ . 2H ₂ O | 17.0 mg |
| Distilled water..... | 1.0 L |

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

Wolfe's Vitamin Solution:

Available from ATCC as a sterile ready-to-use liquid (Vitamin Supplement, catalog no. MD-VS).

| | |
|-------------------------------|---------|
| Biotin..... | 2.0 mg |
| Folic acid..... | 2.0 mg |
| Pyridoxine hydrochloride.... | 10.0 mg |
| Thiamine . HCl..... | 5.0 mg |
| Riboflavin..... | 5.0 mg |
| Nicotinic acid..... | 5.0 mg |
| Calcium D-(+)-pantothenate... | 5.0 mg |
| Vitamin B12..... | 0.1 mg |
| p-Aminobenzoic acid..... | 5.0 mg |
| Thioctic acid..... | 5.0 mg |
| Distilled water..... | 1.0 L |