

### **ATCC Medium: 2850 Modified Nitrate Minimal Salts Medium**

|  |          |
|--|----------|
| NaCl.....  | 20.0 g   |
| MgSO <sub>4</sub> x 7H <sub>2</sub> O.....                 | 1.0 g    |
| CaCl <sub>2</sub> x 6H <sub>2</sub> O.....                 | 0.2 g    |
| KNO <sub>3</sub> .....                                     | 1.0 g    |
| Chelated Iron Solution.....                                | 2.0 ml   |
| Trace Elements Solution (see below).....                   | 10 ml    |
| Vitamin Solution (see below).....                          | 10 ml    |
| KH <sub>2</sub> PO <sub>4</sub> .....                      | 0.272 g  |
| Na <sub>2</sub> HPO <sub>4</sub> x 12H <sub>2</sub> O..... | 0.717 g  |
| Purified Agar (eg. Oxoid L28).....                         | 12.5 g   |
| DI Water.....  | 980.0 ml |

Adjust pH to 6.8 and autoclave at 121 C.

#### **Trace Elements Solution**

|   |            |
|---|------------|
| Nitritotriacetic acid.....                                    | 1.50 g     |
| MgSO <sub>4</sub> x 7 H <sub>2</sub> O.....                   | 3.00 g     |
| MnSO <sub>4</sub> x H <sub>2</sub> O.....                     | 0.50 g     |
| NaCl.....   | 1.00 g     |
| FeSO <sub>4</sub> x 7 H <sub>2</sub> O.....                   | 0.10 g     |
| CoSO <sub>4</sub> x 7 H <sub>2</sub> O.....                   | 0.18 g     |
| CaCl <sub>2</sub> x 2 H <sub>2</sub> O.....                   | 0.10 g     |
| ZnSO <sub>4</sub> x 7 H <sub>2</sub> O.....                   | 0.18 g     |
| CuSO <sub>4</sub> x 5 H <sub>2</sub> O.....                   | 0.01 g     |
| KAl(SO <sub>4</sub> ) <sub>2</sub> x 12 H <sub>2</sub> O..... | 0.02 g     |
| H <sub>3</sub> BO <sub>3</sub> .....                          | 0.01 g     |
| Na <sub>2</sub> MoO <sub>4</sub> x 2 H <sub>2</sub> O.....    | 0.01 g     |
| NiCl <sub>2</sub> x 6 H <sub>2</sub> O.....                   | 0.03 g     |
| Na <sub>2</sub> SeO <sub>3</sub> x 5 H <sub>2</sub> O.....    | 0.30 mg    |
| DI Water.....   | 1000.00 ml |

First dissolve nitritotriacetic acid and adjust pH to 6.5 with KOH, then add minerals. Final pH 7.0 (with KOH).

#### **Vitamin solution**

|  |          |
|--|----------|
| Biotin.....                            | 2.00 mg  |
| Folic acid.....                        | 2.00 mg  |
| Pyridoxine-HCl.....                    | 10.00 mg |
| Thiamine-HCl x 2 H <sub>2</sub> O..... | 5.00 mg  |
| Riboflavin.....                        | 5.00 mg  |
| Nicotinic acid.....                    | 5.00 mg  |
| D-Ca-pantothenate.....                 | 5.00 mg  |
| Vitamin B12.....                       | 0.10 mg  |

|                          |            |
|--------------------------|------------|
| p-Aminobenzoic acid..... | 5.00 mg    |
| Lipoic acid.....         | 5.00 mg    |
| DI Water.....            | 1000.00 ml |

**Chelated Iron Solution**

|                                   |        |
|-----------------------------------|--------|
| Ferric(III)ammonium citrate*..... | 0.1 g  |
| EDTA, sodium salt.....            | 0.2 g  |
| DI Water.....                     | 100 ml |
| HCl(conc).....                    | 0.3 ml |

Use 2ml of this chelated iron solution per liter of final medium.

\*0.05g of Ferric(III)chloride may be substituted.