

**ATCC medium: 917 Metal acetate yeast plus arginine**

Beijerinck's Solution (see below).....50.0 ml  
Phosphate Buffer(see below).....50.0 ml  
Trace Elements (see below).....1.0 ml  
Sodium acetate.....2.0 g  
Yeast extract .....4.0 g  
Arginine.....0.087 g  
Agar (if needed).....15.0 g  
Distilled water.....900.0 ml

Combine ingredients except the phosphate buffer. Autoclave at 121C for 15 minutes. Add the buffer aseptically.

*Beijerinck's Solution:*

NH<sub>4</sub>Cl .....10.0 g  
MgSO<sub>4</sub> . 7H<sub>2</sub>O .....0.4 g  
CaCl<sub>2</sub> . 2H<sub>2</sub>O .....0.2 g  
Distilled water.....1.0 L

Dissolve CaCl<sub>2</sub> in 500 ml of the distilled water, dissolve the other compounds in the second 500 ml. Combine the two mixtures when all compounds have dissolved.

*Phosphate Buffer, pH 6.8:*

K<sub>2</sub>HPO<sub>4</sub> .....28.8 g  
KH<sub>2</sub>PO<sub>4</sub> .....14.4 g  
Distilled water.....1.0 L

Filter-sterilize.

*Trace Elements:*

EDTA in 250 ml of H<sub>2</sub>O.....50.0 g  
ZnSO<sub>4</sub> . 7H<sub>2</sub>O in 100 ml H<sub>2</sub>O.....22.0 g  
H<sub>3</sub>BO<sub>3</sub> in 200 ml H<sub>2</sub>O.....11.4 g  
MnCl<sub>2</sub> . 4H<sub>2</sub>O in 50 ml H<sub>2</sub>O.....5.06 g  
FeSO<sub>4</sub> . 7H<sub>2</sub>O in 50 ml H<sub>2</sub>O.....4.99 g  
CoCl<sub>2</sub> . 6H<sub>2</sub>O in 50 ml H<sub>2</sub>O.....1.61 g  
CuSO<sub>4</sub> . 5H<sub>2</sub>O in 50 ml H<sub>2</sub>O.....1.57 g  
(NH<sub>4</sub>)<sub>6</sub>Mo<sub>7</sub>O<sub>24</sub> . 4H<sub>2</sub>O in 50 ml H<sub>2</sub>O .....1.1 g  
Distilled water to.....1.0 L

Dissolve EDTA in 250 ml of distilled water and boil until it is completely dissolved. Dissolve each of the remaining salts separately in the volumes listed and mix together. Heat this solution to boiling, add the EDTA solution, and continue to boil. Cool to 70C and adjust the pH at this temperature with approximately 80-90 ml of hot (70C) 20% KOH. Dilute the solution to 1.0 L. Allow it to stand in a 2.0 L flask stoppered with cotton until the solution turns purple (about 2 weeks). Filter out the rust-brown precipitate with a Buchner funnel using 2 layers of Whatman #1 paper. Filter until clear. Refrigerate or freeze.