M0178 Middlebrook 7H9 Broth Base

Middlebrook 7H9 Broth Base with added supplement is recommended for cultivation and sensitivity testing of Mycobacterium tuberculosis.

Composition:

Ingredients	Grams/Litre
Ammonium Sulfate	0.5
Disodium Phosphate	2.5
Monopotassium Phosphate	1.0
Sodium Citrate	0.1
Magnesium Sulfate	0.05
Calcium Chloride	0.0005
Zinc Sulfate	0.001
Copper Sulfate	0.001
Ferric Ammonium Citrate	0.04
L-Glutamic Acid	0.5
Pyridoxine	0.001
Biotin	0.0005
Final pH 6.6 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.
Appearance: Light yellow colored, homogenous, free flowing powder.
Color and Clarity: Light amber colored, clear solution with a slight precipitate.

Directions:

Suspend 2.35 g of Middlebrook 7H9 Broth Base in 450 ml of distilled water. Add either 2 ml of glycerol (Cat. No. 49769) or 0.5 g of Tween 80 (Cat. No. 93780). Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 10 minutes. Cool to 45 °C or below and aseptically add 1 vial of Middlebrook ADC Growth Supplement (Cat. No. M0553). Mix well before dispensing.

Principle and Interpretation:

This medium contains many inorganic salts, which support the growth of *Mycobacteria.* Sodium citrate provides citrate ions in the medium, which retain inorganic cations in the solution. Middlebrook ADC Growth Supplement (Product No. M0553) contains bovine albumin, dextrose and catalase. Dextrose supplies energy, while albumin protects Mycobacteria from toxic agents and catalase splits toxic radicals.

Organisms (ATCC)	Growth
Mycobacterium tuberculosis H37 RV (25618)	+++
Mycobacterium smegmatis (14468)	+++
Mycobacterium fortuitum (6841)	+++

References:

1. Middlebrook and Cohn, Am. J. Public Health, 48, 844 (1958).
2. American Type Culture Collection, Manassas Va., U.S.A.