

## MIDDLEBROOK 7H9 BROTH

Liquid medium for cultivation and antimicrobial susceptibility testing of mycobacteria.

TYPICAL FORMULA	(g/l)
Ammonium Sulfate	0.5
L-Glutamic Acid	0.5
Sodium Citrate	0.1
Pyridoxine	0.001
Biotin	0.0005
Disodium Phosphate	2.5
Monopotassium Phosphate	1.0
Ferric Ammonium Citrate	0.04
Magnesium Sulfate	0.05
Calcium Chloride	0.0005
Zinc Sulfate	0.001
Copper Sulfate	0.001
Final pH 6.6 ± 0.2 at 25°C	

### DESCRIPTION

MIDDLEBROOK 7H9 BROTH is a liquid medium used with supplements for the cultivation and antimicrobial susceptibility testing of mycobacteria.

### PRINCIPLE

Ammonium sulfate, glutamic acid, sodium citrate, pyridoxine and biotin supply growth factors. Disodium phosphate and monopotassium phosphate act as buffer agents. Ferric ammonium citrate, magnesium sulfate, calcium chloride, zinc sulfate and copper sulfate are sources of trace ions required for growth of mycobacteria.

The medium can be supplemented with either glycerol (ref. 80021) or polysorbate 80 (ref. 80031). Middlebrook 7H9 (ADC) Supplement (ref. 81063) containing albumin, glucose, catalase and sodium chloride must be added to the medium to support the growth of mycobacteria as well.

### PREPARATION

Suspend 4.7 g of powder in 900 ml of deionized or distilled water (containing 2 ml glycerol or 0.5 g polysorbate 80, if desired). Bring to boil and shake until completely dissolved. Sterilize at 121°C for 10 minutes. Cool up to 45-50°C. Aseptically, add the entire content of 2 bottles (100 ml) of Middlebrook 7H9 (ADC) Supplement. Pour into final containers.

### TECHNIQUE

After processing the sample as required, inoculate the medium with the test specimen. Incubate in a CO<sub>2</sub> enriched atmosphere at 37°C for up to 8 weeks.

### INTERPRETATION OF RESULTS

Cultures should be read within 5-7 days after inoculation and once a week for up to 8 weeks. Turbidity indicates microbial growth. Mycobacterial growth from the broth tubes can be utilized for additional laboratory test procedures as required.

### STORAGE AND TRANSPORT CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *in vitro* diagnostic use only and must be used by properly trained operators.

### DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

### REFERENCES

- Middlebrook (1955) Fitzsimmons Army Hospital Report No. 1, Denver, Colo.
- Middlebrook and Cohn (1958) Am. J. Public Health. 48:844.



## PRODUCT SPECIFICATIONS

### NAME

MIDDLEBROOK 7H9 BROTH

### PRESENTATION

Dehydrated medium

### STORAGE

10-30°C

### PACKAGING

Ref.	Content	Packaging
610214	500 g	500 g of powder in plastic bottle
620214	100 g	100 g of powder in plastic bottle

### pH OF THE MEDIUM

6.6 ± 0.2

### USE

MIDDLEBROOK 7H9 BROTH is a liquid medium used with supplements for the cultivation and antimicrobial susceptibility testing of mycobacteria

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

#### Powder medium

Appearance: free-flowing, homogeneous

Colour: light beige

#### Ready-to-use medium

Appearance: clear

Colour: colourless to very light amber

### SHELF LIFE











4 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control  
Inoculum for productivity: 10-100 CFU/ml  
Incubation Conditions: up to 21 days at 35 ± 2°C, in 10% CO<sub>2</sub> atmosphere

Microorganism		Growth
<i>Mycobacterium intracellulare</i>	ATCC® 13950	Good
<i>Mycobacterium scrofulaceum</i>	ATCC® 19981	Good

### TABLE OF SYMBOLS

 <b>LOT</b>	Batch code	 <b>IVD</b>	<i>In vitro</i> Diagnostic Medical Device		Manufacturer		Use by		Fragile, handle with care
 <b>REF</b>	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult instructions for use		Do not reuse



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