

MIDDLEBROOK 7H 10 AGAR BASE

Basal medium for mycobacteria cultivation.

TYPICAL FORMULA	(g/l)
Ammonium Sulfate	0.5
Monopotassium Phosphate	1.5
Disodium Phosphate	1.5
Magnesium Sulfate	0.025
Sodium Citrate	0.4
Calcium Chloride	0.0005
Zinc Sulfate	0.001
Copper Sulfate	0.001
L-Glutamic Acid (Sodium Salt)	0.5
Ferric Ammonium Citrate	0.04
Piridoxine Hydrochloride	0.001
Biotin	0.0005
Malachite Green	0.00025
Agar	15.0
Final pH = 6.6 ± 0.2 at 25 °C.	

DIRECTIONS

Suspend 19.5 g of powder in 900 ml of distilled or deionized water containing 5 ml of Glycerol supplement (code 80021). Heat to boil until completely dissolved. Autoclave at 121 °C for 15 minutes. Cool to 45-50°C. Aseptically add 100 ml Middlebrook 7H10 supplement (code 81035). Mix well. Aseptically dispense into sterile final tubes and allow the medium to solidify in a slant position.

DESCRIPTION

MIDDLEBROOK 7H10 AGAR BASE is used for isolating, cultivating and susceptibility testing of mycobacteria.

TECHNIQUE

Inoculate the specimen onto the medium. Incubate tubes for up to eight weeks (choose the appropriate conditions of incubation for each specimen). Examine tubes for growth. Observe for the colonies that may or may not be colored. Colony morphology is dependent on the species isolated.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: light beige with green tint.

Prepared medium

Appearance: clear.

Color: colorless to very light amber.

Incubation conditions: 36 ± 1°C for up to 21 days in 10% CO₂.

Microorganism	ATCC	Growth
<i>Escherichia coli</i>	25922	markedly inhibited
<i>Mycobacterium fortuitum</i>	6841	good
<i>Mycobacterium intracellulare</i>	13950	good
<i>Mycobacterium tuberculosis</i>	19981	good

PERFORMANCE AND LIMITATIONS

Negative culture results do not rule out active infection of mycobacteria. Some factors of unsuccessful cultures are:

- The specimen was not representative of the infectious material, i.e. saliva instead of sputum.
- The mycobacteria are destroyed during digestion and decontamination of the specimen.
- Gross contamination interfere with the grow of mycobacteria.
- Proper aerobic and increased CO₂ tension were not provided during incubation.

STORAGE

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 tubes at 2-8 °C.



LIOFILCHEM s.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto D.A. (TE) - ITALY

Phone +390858930745 Fax +390858930330

Website: www.liofilchem.net E-mail: liofilchem@liofilchem.net



REFERENCES

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2. Kleitmann, W. 1995. Clin. Microbiol. News. **17**: 65-69.
3. Middlebrook, G., M.L. Cohn, W.B. Dye, W.B. Russell, Jr., D. and Levy. 1960. Acta. Tubercul. Scand. **38**: 66.

PRESENTATION









Product	REF	
MIDDLEBROOK 7H10 AGAR BASE (25.6 l)	611022	500 g
MIDDLEBROOK 7H10 AGAR BASE (5.1 l)	621022	100 g
MIDDLEBROOK 7H 10 supplement	81035	4 x 50 ml
GLYCEROL supplement	80021	4 x 50 ml

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	IVD <i>In Vitro</i> Diagnostic Medical Device
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	 Keep away from heat source



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