

L.J Medium Slant w/ Capreomycin (40µg/ml)

SL067

For cultivation of *Mycobacterium tuberculosis* .

Composition**

Ingredients	Gms / 600ml
L-Asparagine	3.600
Monopotassium phosphate	2.400
Magnesium sulphate	0.240
Magnesium citrate	0.600
Potato starch, soluble	30.000
Malachite green	0.400
Glycerol	12.000 ml
Whole Egg Emulsion	1000.000 ml
Capreomycin	40.00µg/ml

**Formula adjusted, standardized to suit performance parameters

Directions

Inoculate either the sputum sample previously subjected to decontamination and concentration process or the pure culture of *Mycobacteria* isolated from a clinical sample on the surface of the slants. Incubate the slants at 35-37°C with 5-10% CO₂ and examine the slants every week up to 8 weeks.

Principle And Interpretation

L.J. Medium is prepared as per the Jensen's (1) modification of the original formulation of Lowenstein (2). The egg base medium supports a wide variety of *Mycobacteria* and can also be used for niacin testing (3). Glycerol provides fatty acids. Malachite green serves as an inhibitor as well as pH indicator. Formation of blue zones indicates a decrease in pH by Gram-positive contaminants (e.g. *Streptococci*) and yellow zones of dye destruction by Gram-negative bacilli. Proteolytic contaminants cause localized or complete digestion of the medium (4).

Quality Control

Appearance

Pale bluish green coloured, opaque smooth slant containing Capreomycin (40 µg/ml) in vial.

Cultural response

Cultural characteristics within 10 to 15 days at 35°C, with 5-10% CO₂(further growth may be observed for 2 to 4 weeks)

Sterility test - Passes for release criteria

Organism	Inoculum	Growth on control	Growth on slant w/ Capreomycin	Colony characteristics
<i>M. tuberculosis</i> H37Rv ATCC 25618	Standardized inoculum giving approximately 1000000 cfu/ml	Luxuriant	None to poor Granular,	rough, warty, dry friable colonies

Storage and Shelf Life

Store between 2-8°C. Use before expiry date on the label.

Reference

1. Jensen K.A., 1932, Zentralb. Bacteriol. Parasitenkd. Intektionskr. Hyg. Abt. I. Orig. 125:222.
2. Lowenstein E., 1931, Zentralb. Bacteriol., Parasitenkd. Infektionskr, Abt. I. Orig. 120:127.
3. Biosvert H., 1960, Ann. Inst. Pasteur, 99:600.
4. Nolte F.S., and B. Methcock 1995, Mycobacterium p.400-437 In P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover and R.H. Tenover (ed). Manual of Clinical Microbiology; 6th ed., American Society for Microbiology, Washington, D.C.

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