



Lowenstein-Jensen Medium + PACT

(Polymyxin B, Amphotericin, Carbenicillin, and Trimethoprim)

INSTRUCTIONS FOR USE

Cat. No. TT1510r

General

- The relatively simple formula of Lowenstein-Jensen base must be supplemented in order to obtain growth of mycobacteria.
- Glycerol and eggs supply the fatty acids and proteins required by the metabolism of mycobacteria.
- During preparation egg albumin coagulates causing the medium to solidify and thus enabling it to be inoculated.
- Malachite green inhibits many microorganisms other than fast bacilli.
- Additionally, L-J+ PACT containing Polymyxin B, Amphotericin, Carbenicillin and Trimethoprim inhibits most competitive bacteria and yeasts.

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Inoculation Procedures

- Open cap and inoculate a lot of specimen over all of the surface of the medium.
- If possible
- inoculate more than one tube for each sample.
- Incubate at 37°C for 12 weeks or more in a vertical position. The design of these special caps allows for ventilation of the medium without unscrewing the cap.
- Make reading at days 4, 7, 10, 14 and later every week. No ventilation is necessary due to the special design of the caps. Ensure incubation is in a vertical position.
- The tubes may be held for an additional 4 weeks, if they are still negative at that time they may be discarded.

Incubation and Inspection of Cultures

Cultures should be examined weekly for a minimum of 6 weeks. They can be held for an additional 4 weeks. If at that stage they are negative they may be discarded. Reports are made when growth of mycobacteria is noted, identification has been made or 6 weeks incubation without growth have elapsed. As soon as growth is macroscopically evident on any culture, prepare smears to examine for acid fast bacilli and examine the culture for pigmentation and other properties.

| Microorganisms | Characteristics |
|------------------------|---|
| <i>M. tuberculosis</i> | Eugonic colonies on glycerol containing medium in the form of dry and yellowish pustules (low growth medium glycerol) |
| <i>M. avium</i> | Non-pigmented colonies |
| <i>M. bovis</i> | Orange-yellow colonies |
| <i>M. malmoense</i> | Cream-white wrinkled colonies |

Ventilation of TB culture without unscrewing caps is possible as each cap top has a round opening with a white septum. The septum is pierced with a sterile one-way needle, making a permanent ventilation of the culture. A very low danger of contamination or

Drying up occurs when using a needle with a diameter of less than 1mm. After piercing the septum, the tubes must be incubated vertically to prevent a leakage of liquid. Alternatively, the septum can be left intact and ventilation can be facilitated by unscrewing the cap.