

Product Information

L3910 Lowenstein Jensen medium base

Lowenstein Jensen Medium with the addition of eggs is used for the cultivation of Mycobacteria, especially *Mycobacterium tuberculosis*.

Composition:

| Ingredients | Grams/Litre |
|-------------------------|-------------|
| L-Asparagine | 3.6 |
| Monopotassium Phosphate | 2.4 |
| Magnesium Sulphate | 0.24 |
| Magnesium Citrate | 0.6 |
| Potato Flour | 30.0 |
| Malachite Green | 0.4 |

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: Greenish blue colored, homogeneous, free flowing powder.

Color and Clarity: The mixture of sterile basal medium and whole egg emulsion, coagulates to yield pale bluish, green colored, opaque, smooth slants.

Directions:

Suspend 37.24 g of Lowenstein Jensen Medium Base in 600 ml of distilled water containing 12 ml of glycerol (Fluka 49769). Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Prepare 1000 ml of whole egg emulsion collected aseptically. Add egg emulsion to the Lowenstein Jensen Medium Base and mix gently to obtain a uniform mixture. Distribute in sterile screw capped tubes. Arrange tubes in a slanted position. Coagulate the medium in an autoclave for 45 minutes at 85°C.

Principle and Interpretation:

Malachite green, prevent the growth of the majority of contaminants surviving decontamination of the specimen while encouraging the growth of Mycobacteria.

Cultural characteristics after 2-4 weeks at 35°C with 5-10% CO₂.

| Organisms (ATCC) | Growth |
|---|--------|
| <i>Mycobacterium tuberculosis</i> (25618) | +++ |
| <i>Mycobacterium kansasii</i> (12478) | +++ |
| <i>Mycobacterium gordonae</i> (14470) | +++ |
| <i>Mycobacterium avium</i> (25291) | +++ |
| <i>Mycobacterium smegmatis</i> (14468) | +++ |

References:

1. Lowenstein, E., (1931). Zentralb. Bacteriol., Parasitenkd. Infektionskr. Abt. I. Orig. 120, 127.
2. Jensen, K.A., (1932). Zentralb. Bacteriol. Parasitenkd. Infektionskr. Hyg. Abt. I. Orig. 125, 222.