

**Lowenstein-Jensen Medium + PACT**  
**(Polymyxin B, Amphotericin, Carbenicillin and Trimethoprim)**  
**(16x125mm tubes)**

**Intended used**

- Lowenstein- Jensen + PACT is a selective, differential and enriched medium used primarily for the cultivation and isolation of Mycobacterium spp..

**General**

- The system has a special design with a cap allowing ventilation of the medium without unscrewing.
- L-J is a glycerated egg-potato medium containing malachite green added as an inhibitor to microorganisms other than acid fast bacilli. The addition of PACT, containing Polymyxin B, Amphotericin, Carbenicillin and Trimethoprim inhibits most competitive bacteria and yeasts. The inclusion of ribonucleic acid (RNA) increases the percentage of tubercle bacilli recovered from clinical specimens compared to recovery on the standard L J Medium.

**Basic ingredients per 1600 ml of medium**

Asparagine	3.60gr
Monopotassium Phosphate	2.40gr
Magnesium sulfate	0.24gr
Magnesium citrate	0.60gr
Potato flour	30.00gr
Malachite Green	0.40gr
Glycerol	12.00gr
R.O. Water	600ml
Whole eggs	1000ml

**Quality Control**

- A statistical sampling of each batch is verified to be sterile and tested for physical parameters, pH and capability of growing mycobacteria.
- Further samples are serially sent to a clinical laboratory and tested for performance by "Growth Promotion Test" from minimum inoculum (100-1000 cfu) of standard microorganisms as well as compared to a Reference Batch tested previously.

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. smegmatis</i>	Cream-white wrinkled colonies

**Limitations**

- Because malachite green is photo-sensitive, protect the tubes from all sources of light.
- *M. bovis* may not grow on this medium because the presence of glycerol.
- The agar is light green in color with occasional areas of light yellow particles of egg yolk lipid. These particles should not be mistaken for either mycobacteria or contaminated colonies.
- Since moisture is an essential growth requirement by mycobacteria, keep the tubes tightly sealed until use.

**Storage**

- The product should be stored refrigerated at 2-8° C and protected from light.
- It should be brought to room temperature before using.

**Availability**

- The product is available in 20 units in a package.