

Mycoplasma Agar Base (PPLO Agar Base)

A selective medium for the isolation and cultivation of *Mycoplasma* Sp.

REF: BS.1/PP01.100.0100	100 Gram	REF: BS.1/PP01.250.0250	250 Gram
REF: BS.1/PP01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

The pleuropneumonia-like organisms (PPLO) are a group of pleomorphic, filterable, fastidious microorganisms which also lack a rigid cell wall. This feature makes them naturally resistant to antibiotics that target cell wall synthesis (for example the beta-lactam antibiotics). *M. pneumonia* is an important causative agent of "walking pneumonia" and other respiratory disorders, and *M. genitalium*, which is thought to be involved in pelvic inflammatory diseases.

METHOD PRINCIPLE

This medium contains beef heart infusion and peptone to supply nutrients required for the growth of mycoplasmas like nitrogen, vitamins, amino acids and carbon. Sodium chloride maintains osmotic equilibrium. Agar acts as a solidifying agent. Normal horse serum provides a protein source. Penicillin and thallium acetate can added as inhibitors of bacteria. Yeasts and molds are inhibited by the amphotericin B contained in the medium.

MEDIA COMPOSITION

Item	Formula per liter of medium
Beef extract	6 gm
Peptone	10 gm
Sodium Chloride	5 gm
Agar	15 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
S56: dispose of this material and its container at hazardous or special waste collection point.
S57: use appropriate container to avoid environmental contamination.
S61: avoid release in environment.

For further information, refer to the PPLO Agar material safety data sheet.

STORAGE AND STABILITY

BioScien PPLO Agar should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 7.8±0.2 at 25°C

MEDIA PREPARATION

- 1- Suspend 36 gm of the dry powder in 700 ml distilled water. Mix thoroughly. Heat with frequent stirring and boil for 1 minute until the powder is completely dissolved.
- 2- Autoclave at 121°C for 15 minutes. Cool the medium to 50-60°C.
- 3- Aseptically add 300 ml horse serum to the medium. Mix well.
- 4- Add Selective agents if desired (i.e. 0.25gm Thallium Acetate, 2.5mg Amphotericin B and 1,000,000 U Penicillin).

PROCEDURE

Inoculate the surface of plates containing the complete medium by adding drops of liquid inoculum prepared by serial dilution of the sample, or by a swab-inoculation method. Incubate the media plates at 35 ± 2°C for up to 28 days under a moist atmosphere containing 5-10% carbon dioxide or anaerobically if the presence of *M. buccale*, *M. faucium*, *M. orale* or *M. salivarium* is suspected

Deterioration

The color of **BioScien** PPLO Agar is cream to yellow homogeneous free flowing powder. Prepared Media is light yellow in color. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Clinical samples and pharmaceutical samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile Petri dishes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

Plates or tubes should be incubated in an atmosphere containing 5-10% carbon dioxide and examined after incubation of 48 hours but they should not be discarded as negative until after incubation for 4 weeks. PPLO colonies are round with a dense center and a less dense margin, resembling a “fried egg” on PPLO Agar.

Microorganisms	Growth
<i>Mycoplasma bovis</i> ATCC 25523	luxuriant
<i>Mycoplasma gallinarum</i> ATCC 19708	luxuriant
<i>Mycoplasma pneumoniae</i> ATCC 15531	luxuriant

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **BioScien** technical support.

REFERENCES

1. Morton et al. (1951) Am. J. Syphil. Gonorrh. Vener. Dis. 35: 361.
2. Morton and Lecce, 1953. J. Bacteriol., 66:646
3. Craven, Wenzel, Calhoun, Hendley, Hamory and Gwaltney, 1976, J. Clin. Microbiol., 4:225.
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5. Isenberg (ed.). 1992. Clinical microbiology procedures handbook, vol. 1. American Society for Microbiology, Washington, D.C.
6. Baron, Peterson and Finegold. 1994. Bailey & Scott's diagnostic microbiology, 9th ed. Mosby-Year Book, Inc. St. Louis, Mo.
- 7- Kenny. 1985. In Lennette, Balows, Hausler and Shadomy (ed.). Manual of clinical microbiology, 4th ed. American Society for Microbiology, Washington, D.C.

SYMBOLS IN PRODUCT LABELLING	
 For in-vitro diagnostic use	 Number of <n> test in the pack
 Batch Code/Lot number	 Caution
 Catalogue Number	 Do not use if package is damaged
 Temperature Limitation	 Consult Instruction for use
 Expiration Date	
 Manufactured by	