



Mycoplasma Agar Base (PPLO Agar Base)

RDM-MYA-01

Principle

Mycoplasma agar base was described by Morton, Smith and Leberman (1951) for isolation and cultivation of *Mycoplasma species*. It is composed of meat heart infusion form (equivalent to beef heart infusion form), peptone, sodium chloride and agar. Meat heart infusion form and peptone provides nitrogen, amino acids, carbon vitamins and essential trace nutrients for the growth of microorganisms. Sodium chloride maintain osmotic balance. Agar is solidifying agent. For mycoplasma cultivation the media can be enriched with horse serum and media selectivity can be increased by addition of thallous acetate (25 mg/l) and penicillin G (20000IU/L). Mycoplasma are widely distributed microorganisms with huge diversity. Mycoplasma belongs to aerobic or facultatively anaerobic, anaerobic saprophytic and some are pathogenic. Therefore, the incubation temperature and period are various from species to species. For most of the mycoplasmas species the cultures are incubated in anaerobic atmosphere containing 5-10% carbon dioxide and examined for 24 hours to 3 weeks. Pleuropneumonia-Like Organisms (PPLO) Mycoplasmataceae, colonies are round with a dense center, resembling a “fried egg” on agar.

Use: Recommended for isolation and cultivation of *Mycoplasma species*.

Contents*

Ingredients

	Gram/Litre
Meat Heart Infusion Form#	250.00
Peptone	10.00
Sodium Chloride	5.00
Agar	15.00
pH at 25°C	7.8 ±0.2

* Formula adjusted for optimum performance and parameters

Equivalent to Beef heart infusion form

Directions: Dissolve 36.00 grams in 700 ml distilled water, boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 min, cool it to 42-45 °C and add 300 ml Horse serum. Mix well and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Note: For more selectivity add thallous acetate (25 mg/l) and penicillin G (20000IU/L).

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Beige colored free flowing, homogeneous powder
Reaction of 3.6% solution	7.8 ±0.2 at 25 °C
pH	7.60- 8.00

Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	ATCC	Inoculum	Growth	Recovery	Incubation
<i>Mycoplasma pneumoniae</i>	15531	50-100	Luxurious	50-60%	24-37 °C, 24-48 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. Morton, Smith and Leberman, (1951), Am. J. Syphilis Gonorrh. Venereal Diseases, 35: 361.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) *Manual of Clinical Microbiology*, 11th Edition. Vol. 1.

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