PRODUCT INFORMATION

Product Type: Little Dishes 50mm

Cat No. LD505 - MODIFIED M-PA AGAR

Intended Use:
M-PA-C Agar is used for the selective recovery and enumeration of Pseudomonas aeruginosa from water.

Principle and Uses:
This formulation of M-PA-C Agar the has ability to enumerate P. aeruginosa after only 24 hours of incubation at 41.5°C. M-PA-C Agar is identified as Modified M-PA Agar in Standard Methods for the Examination of Water and Wastewater.
Yeast extract, lysine and the carbohydrates provide carbonaceous and nitrogenous compounds, energy sources and vitamins required for bacterial metabolism. Sodium chloride maintains osmotic equilibrium. The salts provide essential ions. Phenol red is a pH indicator, which becomes yellow in response to acids produced as a result of the fermentation of the carbohydrates. Kanamycin inhibits protein synthesis in gram-positive organisms. Nalidixic acid blocks replication of susceptible gram-negative bacteria.

Procedure
Following filtration of the water sample through a sterile 47 mm, 0.45 µm gridded filter, place the membrane filter on the surface of a plate of M-PA-C Agar taking care to avoid the entrapment of bubbles between the agar and filter surface.
Incubate for 72 hours at 41.5 ± 0.5°C in an aerobic atmosphere.
Consult the standard method for additional information regarding the M-PA-C membrane filter technique.

Expected Results
Colonies on membrane filters are counted using a stereoscopic microscope at 10-15× magnification. Optimal colony density is 20-80 colonies. All colonies on the filter are counted when the density is 2 or fewer per square. The average of 10 squares is determined when the count is 3-10 colonies per square and the average of 5 squares is determined when the count is 10-20 colonies per square. Multiply the average count per square by 100 and divide by the sample volume to give colonies per milliliter.

Composition

Yeast Extract - 2.0 g/L
L-Lysine HCl - 5.0 g/L
Sodium Chloride - 5.0 g/L
Xylose - 1.25 g/L
Sucrose - 1.25 g/L
Lactose - 1.25 g/L
Phenol Red - 0.08 g/L
Ferric Ammonium Citrate - 0.8 g/L
Sodium Thiosulfate - 5.0 g/L
Magnesium Sulphate - 1.5 g/L
Kanamycin - 8.0 mg/L
Nalidixic Acid - 37.0 mg/L
Agar - 12.0 g/L

Storage: 2-8°C
Appearance: Medium to dark, orange-red to rose red, clear to slightly hazy.
pH Range: 6.9 - 7.3

Package contents: 5 plates in a package
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

Waste Disposal
After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:
GPT: inoculum 10-100 cfu.
Inhibitory properties: inoculum 10000 cfu.

TEST	ATCC	Incubation Temp. (℃)	Incubation Cond.	Reaction 1	
Pseudomonas aeruginosa	27853	41-43 ℃	Aerobic, 48-72 hours	Growth	Orange brownish
Aeromonas hydrophila	35654	41-43 ℃	Aerobic, 48-72 hours	Inhibited	
Escherichia coli	25922	41-43 ℃	Aerobic, 48-72 hours	Inhibited	
Staphylococcus aureus	25923	41-43 ℃	Aerobic, 48-72 hours	Inhibited	

Hy Laboratories Ltd.
6 Menachem Plaut St., Park Tamar, Rehovot 7670606, Israel
Tel. +972.8.9366475 **Email.** hylabs@hylabs.co.il

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