

# PRODUCT INFORMATION

Product Type: Little Dishes 50mm

Cat No. LD531 - M-H PC AGAR BASE

## Intended Use:

m HPC Agar (membrane Heterotrophic Plate Count Agar) is used for enumerating heterotrophic organisms in treated potable water and other water samples with low counts, by membrane filtration. It is recommended by standard methods, such as those from the American Public Health Association (APHA), for monitoring water quality.

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## Principle and Uses:

### Method:

Used with the membrane filtration technique, which allows for the analysis of large sample volumes and is particularly valuable for water with low microbial loads.

Peptone provides nitrogen and carbon as well as other nutrients. Gelatin at 2.5% concentration eliminates problems of liquefaction and spreading colonies. Agar is the solidifying agent.

Interpretation: After incubation, colonies that grow on the membrane filter placed on the agar are counted as heterotrophic plate count organisms.

## Procedure

1. The volume to be filtered will vary with the sample. Select a maximum sample size to give 20-200 CFU per filter.
2. Filter the appropriate volume through a sterile 47 mm, 0.45 µm, gridded membrane filter, under partial vacuum. Rinse funnel with three 20-30 mL portions of sterile dilution water. Place filter on agar in Petri dish.
3. Place dishes in a close-fitting box or plastic bag containing moistened paper towels.
4. Incubate at  $35 \pm 0.5^{\circ}\text{C}$  for 48 hours. Duplicate plates may be incubated at other conditions as desired.

## Expected Results

Count all colonies on the membrane when there are 2 or less colonies per square. For 3-10 colonies per square, count 10 squares and obtain average count per square. For 10-20 colonies per square, count 5 squares and obtain average count per square. Multiply average count per square by 100 and divide by the sample volume to give colonies per milliliter. If there are more than 20 colonies per square, record count as  $> 2,000$  divided by the sample volume. Report averaged counts as estimated colony-forming units. Make estimated counts only when there are discrete, separated colonies.

## Limitation of the Procedure

1. m HPC Agar is intended for use only with the membrane filter method.
2. m HPC Agar is recommended for testing treated water.
3. Longer incubation times may be necessary to recover slow growing bacteria.

## Composition

Peptone - 20.0 g/L  
Gelatin - 25.0 g/L  
Agar - 15.0 g/L  
Glycerol 10 ml/L

**Storage:** 2-8°C

**Appearance:** Light amber, opalescent

**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.

TEST	ATCC	Incubation Temp. (°C)	Incubation Cond.	Reaction 1
<i>Escherichia coli</i>	25922	33-37 °C	Aerobic, 24-48 hours	Growth
<i>Pseudomonas aeruginosa</i>	27853	33-37 °C	Aerobic, 24-48 hours	Growth
<i>Enterococcus faecalis</i>	29212	33-37 °C	Aerobic, 24-48 hours	Growth
<i>Bacillus subtilis</i>	6633	33-37 °C	Aerobic, 24-48 hours	Growth