

## TM 2294 – PROTEOSE AGAR

### INTENDED USE

For the cultivation of *Vibrio* species from foods in accordance with APHA.

### PRODUCT SUMMARY AND EXPLANATION

*Vibrios* are fairly easy to isolate from both clinical and environmental materials, though some species may require growth factors and /or vitamins. *Vibrio parahaemolyticus* is the leading cause of bacterial diarrhoea associated with the consumption of contaminated food products. Media can be made selective for *Vibrios* by addition of appropriate selective agents. High concentrations of NaCl and alkaline pH have also been used to select certain *Vibrio* species, based on the ability of most *Vibrios* to grow at pH values above 8.0 and at 3% or higher concentrations of NaCl.

Proteose Agar is used for cultivating *Vibrio* species from foods as per APHA. This medium does not contain any inhibitor or indicator. However, it has a relatively high (alkaline) pH, which suppresses the growth of most of the organisms that are non-alkalophilic or alkali non-tolerant.

### COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	15.000
Yeast extract	7.500
Casein acid hydrolysate	5.000
Starch, soluble	1.000
Dipotassium hydrogen phosphate	5.000
Ammonium sulphate	1.500
Agar	15.000

### PRINCIPLE

This medium is nutritious due to the incorporation of nitrogenous compounds such as proteose peptone, yeast extract and casein acid hydrolysate. Dipotassium phosphate and ammonium sulphate provide ions and also buffer the medium. Starch is a carbohydrate source and can also neutralize the toxic fatty acids present in the agar medium if any.

### INSTRUCTION FOR USE

- Dissolve 50.0 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in 10 ml amounts into test tubes of 16 x 150 mm size.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Incline while cooling to obtain a long slant.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
- Appearance of prepared medium** : Yellow coloured Clear to slightly opalescent gel forms in tubes as butts.
- pH (at 25°C)** : 9.0 ± 0.2

### INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Vibrio cholerae</i>	15748	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Vibrio parahaemolyticus</i>	17802	50-100	Luxuriant	35-37°C	18-24 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

- Collee J.G., Duguid J.P., Marmion B.P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1989, 13th Edition, Churchill Livingstone.
- Downes F.P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

\*For Lab Use Only  
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