

## TM 1313 - VIBRIO PARAHAEMOLYTICUS SUCROSE AGAR (as per APHA) (VPSA)

### INTENDED USE

For isolation and enumeration of *Vibrio parahaemolyticus* from seafood.

### PRODUCT SUMMARY AND EXPLANATION

*Vibrio parahaemolyticus* is a halophilic estuarine organism. This organism can be isolated from a variety of seafood products and marine environments. The organism, when isolated from fresh seafood, is usually found in low numbers (< 100/g) and is sensitive to refrigeration and heat.

*Vibrio parahaemolyticus* Sucrose Agar is recommended by APHA for isolating and enumerating *V. parahaemolyticus* from seafoods. It is a differential medium (and also selective to some extent) that distinguishes *V. parahaemolyticus* from other marine Vibrios. This medium is employed in the final steps of Hydrophobic Grid Membrane Filtration enumeration procedure.

### COMPOSITION

Ingredients	Gms / Ltr
Tryptose	5.000
Casein enzymic hydrolysate	5.000
Yeast extract	7.000
Sucrose	10.000
Sodium chloride	30.000
Bile salts mixture	1.500
Bromo thymol blue	0.025
Agar	15.00

### PRINCIPLE

Tryptose, casein enzymic hydrolysate and yeast extract provide the necessary nitrogen compounds, growth factors and vitamin B complex for the growth of *V. parahaemolyticus*. Sucrose is the fermentable carbohydrate. Bromothymol blue is the pH indicator. Bile salts mixture inhibits the contaminating gram-positive bacteria. High salt content and alkaline pH of the medium provides conditions that facilitate easy recovery of *Vibrio*'s. *V. parahaemolyticus* does not ferment sucrose and forms green to blue colonies which differentiates it from other sucrose fermenting *Vibrio* species.

Suspected seafood sample when diluted and blended with sterile peptone tween salt diluent, is filtered through HGMF using sterile diluent as a carrier. HGMF is then aseptically transferred to the Tryptic Soya Salt Agar with Magnesium Sulphate (TSAMS) plates and incubated for 4 hours at 35°C. HGMF is then transferred from TSAMS to the dry VPSA plate and incubated for 18-20 hours at 42°C.

### INSTRUCTION FOR USE

- Dissolve 73.52 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely, do not autoclave.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS



**Appearance of Powder** : Light yellow to pale green homogeneous free flowing powder.  
**Appearance of prepared medium** : Blue coloured clear to slightly opalescent gel forms in Petri plates.  
**pH (at 25°C)** : 8.6±0.2

**INTERPRETATION**

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Staphylococcus aureus</i>	25923	>=10 <sup>3</sup>	Inhibited	0%	-	42°C	18-24 Hours
<i>Vibrio parahaemolyticus</i>	17802	50-100	Luxuriant	>=50%	Blue-green	42°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.

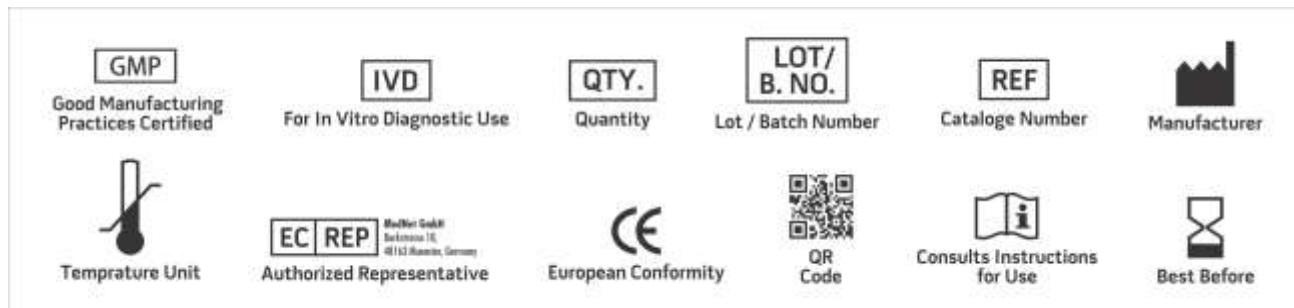
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

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

**REFERENCES**

- Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
- Entis P. and Boleszczuk P., 1983, J. Food Prot., 46:783.



**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.  
**\*For Lab Use Only**

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