

## Specification

Solid culture medium for heterotrophic marine bacteria.

## Presentation

20 Prepared Plates  
90 mm  
with:  $21 \pm 2$  ml

### Packaging Details

1 box with 2 packs of 10 plates/pack. Single cellophane..

### Shelf Life

3,5 months

### Storage

2-14°C

## Composition

Composition (g/l):

Meat peptone.....	5,0000
Yeast extract.....	1,0000
Iron citrate.....	0,1000
Sodium chloride.....	19,4500
Sodium sulfate.....	3,2400
Sodium bicarbonate.....	0,1600
Sodium silicate.....	0,0040
Sodium fluoride.....	0,0024
Disodium phosphate.....	0,0080
Calcium chloride.....	1,8000
Magnesium chloride.....	8,8000
Potassium chloride.....	0,5500
Potassium bromide.....	0,0800
Strontium chloride.....	0,0340
Ammonium nitrate.....	0,0016
Boric acid.....	0,0220
Agar.....	15,0000
Cycloheximide.....	0,2000

## Description /Technique

Marine Agar was formulated according to the original description of ZoBell that tries to duplicate the major mineral concentration found in sea water. Included in its composition are mineral salts, peptone and yeast extract, and growth factors necessary to sustain the growth of heterotrophic marine bacteria.

The gelling agent is agar and it is often found to be liquefied by marine bacteria. Cycloheximide is a thermostable antibiotic have a broad antibacterial spectrum which ensures the selective isolation of fungi from highly contaminated samples. Cycloheximide prevent the growth of saprophytic fungi.

Marine bacteria are thermo-sensitive and streak-plates are recommended, if pour-plates are preferred. Incubate the samples at 20-25 ° C for 48-72 h.

## Quality control

### Physical/Chemical control

Color : Yellowish

pH:  $7.6 \pm 0.2$  at 25°C

### Microbiological control

Loop spreading

Aerobiosis. Incubation at 20-25 °C, reading after 24/48-72 h.

### Microorganism

*Vibrio alainolyticus* ATCC® 17749

*Vibrio parahaemolyticus* ATCC® 17802, WDCM 00037

### Growth

Good

Good

### Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

**Bibliography**

- BUCK, J.D. & R.C. CLEVERDON (1960) The spread plate as a method for the enumeration of marine bacteria. *Limnol. Oceanogr.* 5:78-80.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- SIZEMORE, R.K. & L.H. STEVENSON (1970) Method for the isolation of proteolytic marine bacteria. *Appl. Microbiol.* 20:991-992.
- ZOBELL, C.E. (1941) Studies on marine bacteria. I. The cultural requirements of heterotrophic aerobes. *J. Mar. Res.* 4:42-75.