

## Zobell Marine Broth 2216 (i23373)

is used for isolation and enumeration of heterotrophic marine bacteria.

### Principles & Uses

Marine Broth, similar to Marine Agar but without agar, is designed to cultivate marine bacteria with a composition that mimics seawater. It contains peptone and yeast extract for essential nutrients, nitrogen, and vitamins, and high salt content to simulate seawater. Both Marine Agar and Marine Broth follow ZoBell's formulation with nearly double the mineral content of seawater.

Microorganisms in aquatic environments, particularly in surface layers and sediments, play vital roles in ecological cycles, forming the foundation of food chains.

### Composition (gr/L)

Peptone 5 g, Yeast Extract 1 g, Ferric Citrate 0.1 g, Sodium Chloride 19.45 g, Magnesium Chloride 5.9 g, Magnesium Sulfate 3.24 g, Calcium Chloride 1.8 g, Potassium Chloride 0.55 g, Sodium Bicarbonate 0.16 g, Potassium Bromide 0.08 g, Strontium Chloride, 34 mg, Boric Acid 22 mg, Sodium Silicate 4 mg, Sodium Fluoride 2.4 mg, Ammonium Nitrate 1.6 mg, Disodium Phosphate 8 mg.

Final pH at 25°C 7.6 ± 0.2

### Preparation from dehydrated Powder

Dissolve 37.4 g of the powder in 1 L of purified water. Adjust pH to 7.6 Autoclave at 121°C for 15 minutes.

### Quality Control

Dehydrated Appearance: Light beige with a few dark particles, free flowing.

Prepared Appearance: light amber, slightly opalescent with a precipitate.

Reaction of 3.74% Solution at 25°C: pH 7.6 ± 0.2

## Cultural Response

Cultural response observed after an incubation at 20 - 25°C on a shaker for 40 - 72 hours.

Organism (ATCC*)	Recovery
<i>Vibrio fischeri</i> (7744)	Good
<i>Vibrio harveyi</i> (14126)	Good

\*ATCC is a registered trade mark of the American Type Culture Collection.

## Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.