

PRODUCT CODE: 414680

Marine Agar (Dehydrated Culture Media) for microbiology

Preparation

Suspend 55.20 grams of the medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 50°C, mix well and dispense into plates. The prepared medium should be stored at 8-15°C.

The colour is amber, slightly opalescent, and may present a light precipitation. It is recommended to homogenize the medium in its container before pouring into plates. The dehydrated medium should be homogeneous, free-flowing and beige in colour. If there are any physical changes, discard the medium.

Uses

MARINE AGAR is a medium containing all the nutrients necessary to cultivate the majority of marine bacteria. Since the marine environment is characterized by unique environmental conditions, its microflora is also unique. Marine microorganisms have the ability to survive at very low temperatures and at high salinity levels.

Both Marine Agar and Marine Broth are prepared according to ZoBell, containing almost double the mineral content of sea water. The high salt content helps to simulate sea water. Bacteriological peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Bacteriological agar is the solidifying agent. Inoculate and incubate at 20-25°C for 24-72 hours.

Using the conventional plate count technique or streaking the surface of the plate yields good results. In the spread plate technique, the agar is poured while hot and allowed to cool before inoculation. However, precaution must be taken in the pour plate method to cool the medium to 42°C before pouring, as the majority of marine organisms are heat sensitive.

Composition

See in Data Sheet (TDS).

Microbiological Test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 20-25°C and observed after 24 - 72 hours.

| Microorganism | Growth |
|----------------------------------|---------------|
| <i>Vibrio fischeri</i> ATCC 7744 | Good |
| <i>Vibrio harveyi</i> ATCC 14126 | Good |

Storage

Once opened keep powdered medium closed to avoid hydration.

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