FMM Broth

Cat. 1264

For the cultivation of Flexibacter maritimus.

Practical information

Aplications	Categories
Selective isolation	Flexibacter maritimus

Industry: Pharmaceutical/Veterinary

Principles and uses

FMM Broth is a medium used for the cultivation of Tenacibaculum maritimum (formerly Flexibacter maritimus) which is responsible for Flexibacteriosis marina, one of the most important bacterial diseases affecting marine lives around the world. This has an important economic impact to aquaculture producers. The infection has a variety of clinical manifestations depending on the species and age of fish, the most significant symptom being the presence of gross lesions on the body surface. It is, currently, the main pathological problem in turbot and sole cultivation affecting all ages of fish.

Casein peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. The rest of the components provide the salinity requirements that make the medium similar to sea water.

The isolated bacteria are biochemically characterized by conventional methods in plates and tubes. They are gram-negative filamentous bacillus, oxidize and catalyse positive, nitrate reductors and incapable of producing sulphydric acid. They are negative for the test of indole and methyl red. To confirm the taxonomic position perform molecular and serological tests (PCR).

Formula in g/L

Ammonium nitrate	0,0016	Boric acid	0,022
Calcium chloride	1,8	Casein peptone	5
Disodium phosphate	0,008	Potassium bromide	0,08
Potassium chloride	0,55	Sodium acetate	0,01
Sodium bicarbonate	0,16	Sodium chloride	19,4
Sodium fluoride	0,0024	Sodium silicate	0,004
Sodium sulfate	3,24	Strontium chloride	0,034
Yeast extract	0,5	Magnesium chloride	5,9

Preparation

Suspend 36,7 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121 ºC for 15 minutes.

Instructions for use

Incubate at 25ºC during 72 hours.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Whitish	Light amber	7,4±0,2

Microbiological test

Incubation conditions: (25 ºC / 72 h).

Microrganisms	Specification
Flexibacter maritimus sp	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

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