



Nutritive Caseinate Agar

M932

Nutritive Caseinate Agar is used for enumeration of salt tolerant cocci in brined vegetables.

Composition**

Ingredients	Gms / Litre
Isoelectric casein	3.000
Peptonized milk	7.000
Bromo cresol purple	0.040
Dextrose	1.000
Agar	12.000
Final pH (at 25°C)	6.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 23.04 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Note : After sterilization the medium may look slightly opalescent

Principle And Interpretation

Vegetables may be preserved by salting or brining. In salting or brining, the vegetables may or may not undergo a lactic acid fermentation, depending upon the concentration of salt used. Numbers of salt tolerant cocci may be found over an extended period in brines, particularly in those containing no appreciable amount of developed acidity. These organisms are extremely salt tolerant but not acid tolerant.

Nutritive Caseinate Agar is formulated as recommended by APHA for enumeration of salt tolerant cocci from brined vegetables (1). Salt tolerant cocci are a cause of spoilage of brined vegetables and therefore pose a problem to the food industry. It thus becomes important to isolate these organisms for sterility checking of packed brined vegetables.

Isoelectric casein and peptonized milk provide essential growth nutrients for bacterial metabolism. Dextrose upon utilization produces acid and is indicated by the pH indicator bromocresol purple, which turns yellow. This helps in the differentiation of cocci. Count colonies that are grayish white, entire, glistening and of moderate size and similar colonies that are light orange to yellow in colour. Subsurface colonies are lenticular to elliptical in shape.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.2% Agar gel.

Colour and Clarity of Prepared medium

Reddish purple coloured slightly opalescent gel forms in Petri plates

Reaction

Reaction of 2.3% w/v aqueous solution at 25°C. pH : 6.5±0.2

pH

6.30-6.70

Cultural Response

M932: Cultural characteristics observed after an incubation at 32-35°C for 48-72 hours.

Organism

Growth

Enterococcus faecalis ATCC luxuriant
29212

Pediococcus cerevisiae luxuriant
ATCC 10791

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

Reference

1. Speck M. L., (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.

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