

BRYANT BURKEY MEDIUM (5 ML)

INTENDED USE:

Bryant Burkey Medium is used for detecting and enumerating spores of lactate fermenting Clostridium in milk and dairy products.

PRINCIPLE AND INTERPRETATION:

Bryant Burkey Medium is used to enumerate the spores of gasogenic clostridia that are responsible for swelling of cheese in dairy industry. In normal conditions of use, the medium allows the growth of other microorganisms also which are not directly related to cheese alteration, e.g. Clostridium sporogenes or Clostridium butyricum. Germination and growth of butyric acid bacteria (BAB) causes severe defects in cheese with silage being the main source of BAB spores in cheese milk. Clostridia spores are heat resistant and therefore can contaminate cheese brines.

Recommended technique for estimation of Clostridium is to enumerate the spores by the MPN method. Test sample must be previously decontaminated by heating up for 10 minutes at 75°C in order to destroy all the vegetative forms while only leaving the spores alive. The tubes of the medium are then boiled to regenerate anaerobiosis and cooled down to 25-30°C. These tubes are inoculated with the sample and overlaid with 2 cm of sterile paraffin and incubated for upto 7 days at 37°C. Examine the tubes after every 48 hours. A raised paraffin plug indicates gas formation. Tubes will be declared positive if they show clear gas production and MPN index is used to calculate the number of Clostridia.

COMPOSITION:

Ingredients	Gr/Liter
Casein enzymic hydrolysate	15 gr
Yeast extract	5 gr
Beef extract	7,5 gr
Sodium acetate	5 gr
L-Cysteine hydrochloride	0,5 gr
Resazurin	0,0025 gr

***Formula adjusted, standardized to suit performance parameters

pH: 5,9 ± 0,2

PRECAUTIONS:

For professional use only. Do not use tubes if they show evidence of microbial contamination, discoloration or other signs of deterioration.

TEST PROCEDURE:

Recommended technique for estimation of Clostridium is to enumerate the spores by the MPN method. Test sample must be previously decontaminated by heating up for 10 minutes at 75°C in order to destroy all the vegetative forms while only leaving the spores alive. The tubes of the medium are then boiled to regenerate anaerobiosis and cooled down to 25-30°C. These tubes are inoculated with the sample and overlaid with 2 cm of sterile paraffin and incubated for upto 7 days at 37°C. Examine the tubes after every 48 hours. A raised paraffin plug indicates gas formation. Tubes will be declared positive if they show clear gas production and MPN index is used to calculate the number of Clostridia.

QUALITY CONTROL:

1.Sterility Control:

Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

2.Physical/Chemical Control

pH: 5,9 ± 0,2

Apperance: Light amber coloured.

3.Microbiological Control: Incubation at a temperature of 35±2°C for 7 days and observed after 24-72 hours.

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Clostridium tyrobutyricum ATCC 25755	10-100	Good	Gas (+)

STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2- 12°C. Use before expiry date on the label..Do not use beyond stated expiry date.

DISPOSAL:

Incubated medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected tube should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

PACKAGING:

Katalog Number: 01002

Content/Packaging: 50 Tubes/Box

REFERENCES:

1. Bryant M. P. and Burkey L. A., 1956, J. Bacteriol., 71: 43-46.
2. Bergeres J. L. and Sivela S., 1989, Detection and enumeration of Clostridial spores related to cheese quality-Classical and new methods, FIL-IDF Bull. 51:18-23.
3. Touraille C. and Bergere J. L., 1974, Biochimie, 56: 404-422.
4. Vissers M. M. M., Drichuis F., Giffel T., John P. D., Lankveld J. M. G., 2007, J. Dairy Sci., 90:928



Aseptic Sterile



Batch Code



Catalogue Number



Negative Controls



Positive Controls



Use by



Temperature Limitation



Do not reuse



Contains sufficient for <n> tests



Look at user manual



Manufacturer