

# Modified Nocive Brewers Bacteria Agar Base

Cat. 1438

Selective medium for the detection of contaminating, spoilage microorganisms in brewery.

## Practical information

Applications	Categories
Selective enrichment	Microorganisms of the brewing industry
Detection	Microorganisms of the brewing industry

Industry: Alcoholic beverages

## Principles and uses

Modified Nocive Brewers Bacteria Agar Base is a medium used for the detection of beer spoilage bacteria.

This medium contains a wide variety of nutrients including pancreatic digest of casein, yeast extract, beef extract, dextrose and maltose. These nutrients favour the growth of spoilage microorganisms in beer and other samples. Potassium acetate (instead of sodium acetate) makes the medium less inhibitory for the growth of spoilage bacteria that deteriorate beer and other samples. Polysorbate 80 is incorporated to neutralize phenols, hexachlorophene and formalin. L-Cysteine hydrochloride is the reducing agent. Disodium phosphate act as a buffer system. Bacteriological agar is the solidifying agent.

## Formula in g/L

Bacteriological agar	15	Beef extract	2
Dextrose	15	Disodium phosphate	2
Maltose	15	Pancreatic digest of casein	5
Polysorbate 80	0,5	Yeast extract	5
L-Malic Acid	0,5	L-Cysteine HCl	0,2
Chlorophenol Red	0,07	Potassium Acetate	6

Typical formula g/L \* Adjusted and/or supplemented as required to meet performance criteria.

## Preparation

Suspend 66,3 grams of medium in 500 ml of distilled water and 500 ml of beer without gas. 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 45-50 °C, mix well and dispense into plates.

## Instructions for use

Poured plate method:

- Deposit 1 ml of the initial suspension and/or diluted sample in an empty Petri dish.
- Add 12-15 ml of agar cooled to 44-47 °C in each Petri dish and mix gently moving the plate.
- Allow the plates to solidify and incubate in an inverted position at a temperature of 30-35 °C for 4 days.
- Take the acid producing colonies and carry out the catalase and Gram stain tests.

## Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Pink-red	5,8±0,2

## Microbiological test

Incubation conditions: (30-35 °C / 4 days).

Microorganisms	Specification	Characteristic reaction
Pediococcus damnosus ATCC 29358	Good growth	Acid production (Trace yellow-yellow)
Pediococcus acidilactici ATCC 8042	Good growth	Acid production (Trace yellow-yellow)
Lactobacillus brevis ATCC 8287	Good growth	Acid production (Trace yellow-yellow)

## Storage

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Temp. Min.: 2 °C  
Temp. Max.: 25 °C

## Bibliography

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Back, 1980 Brauwelt 1562  
Dacha, 1981, Brauwelt 1778