

# Wallerstein Biosart® 100 Nutrient Media



## Introduction

Wallerstein Biosart® 100 Nutrient Media is used for the detection and enumeration of microbiological flora in brewing and fermentation processes, as described by Green and Gray (1950). This culture medium is suitable for cultivating microorganisms in beverages such as beer, wine, soft drinks, concentrates, fruit juices, and other products.

The medium contains all the essential ingredients and the slightly acidic pH value supports the growth of lactic acid bacteria, yeasts, and molds.

## Technical Specifications

<b>Order No.</b>	16400-02----WN-K (50 units)
<b>Media</b>	Wallerstein Nutrient
<b>Color</b>	Green
<b>Storage</b>	Refrigerate (2 - 8 °C) after arrival*, dark and dry, use before expiry date on the label
<b>Shelf Life</b>	12 months
<b>For Use With</b>	Biosart® 100 Monitor (16401) with white membrane filter and black grid, 0.45 µm

\* Data have shown constant performance in microbiological tests after storage at 22 °C for 14 days.

## Media Formulation\*\*

<b>Ingredients</b>	<b>g/L</b>
Peptic digest of casein	5
Ferric chloride	0.0025
Yeast extract	4
Dextrose	50
Magnesium sulfate	0.125
Monopotassium phosphate	0.55
Potassium chloride	0.425
Calcium chloride	0.125
Bromocresol green	0.022
Manganese sulfate	0.0025
Water (AP-Quality)	Ad 1,000 mL

pH 5.8 ± 0.25 (at room temperature)

\*\* Formula adjusted, standardized to suit performance parameters.

## Instructions

The Biosart® 100 Monitor is a sterile, ready-to-use disposable unit featuring an integrated membrane filter and cellulose pad. After filtration, add the Biosart® 100 Nutrient Media from the ampoule and apply vacuum for 1 second. Remove the disposable unit from the manifold and seal the outlet. Finally, detach the funnel to transform the monitor into a petri dish.

### Incubation Conditions

Yeast and mold: 3 - 5 days at 26 ± 2 °C, aerobic.

Lactic acid bacteria: 3 - 7 days at 26 ± 2 °C, anaerobic.

### Evaluation and Typical Results

Yeasts usually grow as yellowish green colonies. Molds generally form velvety or fluffy cotton-like colonies that look white in the early growth phase and may take various colors after conidiospore production. Bacteria grow slowly and their colonies are of different size and color.

## Microbiological Quality Control

### Sterility: Qualitative

Incubation conditions: 14 days at 30 - 35 °C

Specification: No growth or turbidity

### Productivity: Quantitative

Inoculum: 50 - 150 CFU

Incubation conditions:

Yeast and mold: 3 - 5 days at 26 ± 2 °C, aerobic

Lactic acid bacteria: 3 - 7 days at 26 ± 2 °C, anaerobic

Specification: ≥ 85% membrane filtration on control agar as reference

<b>Microorganism</b>	<b>Test strain</b>	<b>Specification</b>	<b>Morphology</b>
<i>Lactobacillus brevis</i>	WDCM 00099	$P_R \geq 0.85$	Small, green colonies
<i>Pediococcus damnosus</i>	WDCM 00022	$P_R \geq 0.85$	Green colonies
<i>Candida albicans</i>	WDCM 00054	$P_R \geq 0.85$	Green blue colonies
<i>Rhodotorula mucilaginosa</i>	DSM 70403	$P_R \geq 0.85$	Bright red to red brown colonies
<i>Lactobacillus lindneri</i> ***	DSM 20690	$P_R \geq 0.85$	Very small, glassy green colonies
<i>Penicillium commune</i> ***	DSM 2211	$P_R \geq 0.85$	Grey blue fluffy colonies

\*\*\* Tested on a regular basis.

$P_R$  Productivity Ratio


The incubation conditions recommended by Sartorius can be adjusted based on the type of samples, in accordance with the reference standards or customer requirements. Descriptions of typical results illustrate the usual appearance of the specified microorganisms. However, in certain cases, the color and shape of the colonies may differ from the expected appearance. Additional tests may be required to confirm the results. Sartorius shall not be liable for any consequential or incidental damages incurred by customers from the use of its products.

**Germany**

Sartorius Lab Instruments GmbH & Co. KG  
Otto-Brenner-Strasse 20  
37079 Goettingen  
Phone +49 551 308 0

**USA**

Sartorius Corporation  
3874 Research Park Drive  
Ann Arbor, MI 48108  
Phone +1 734 769 1600

 For further contacts, visit  
[www.sartorius.com](http://www.sartorius.com)