SARTORIUS

Product Information

Wallerstein Differential Biosart® 100 Nutrient Media

Introduction

Wallerstein differential Biosart® 100 Nutrient Media is used for the isolation and enumeration of bacteria encountered in breweries and industrial fermentations.

The medium contains all the essential ingredients for the growth of lactic acid bacteria, yeasts, and molds, similar to the Wallerstein nutrient medium. Additionally, cycloheximide has been added to suppress the growth of *Saccharomyces cerevisiae*.

Technical Specifications

Order No.	16400-02----WL-K (50 units)
Media	Wallerstein Differential
Color	Turquoise
Storage	Refrigerate (2 - 8 °C) after arrival*, dark and dry, use before expiry date on the label
Shelf Life	12 months
For Use With	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**

Ingredients	g/L
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
Cycloheximide	0.006
Water (AP-Quality)	Ad 1,000 mL

pH 5.5 ± 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

Lactobacillus brevis forms small green colored colonies with sharp edge. *Lactobacillus plantarum* grow as small greenish or yellow colored and round colonies with sharp edge. *Escherichia coli* grow as white to cream-colored colonies with sharp edge.

The growth of a *Saccharomyces cerevisae* is inhibited by cycloheximide. If cycloheximide resistant yeast grow, they are creamy, green-white.

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

Microorganism	Test strain	Specification	Morphology
Lactobacillus brevis	WDCM 00099	$P_R \geq 0.85$	Green colonies
*Lactobacillus lindneri****	DSM 20690	$P_R \geq 0.85$	Very small, glassy green colonies
*Rhodotorula mucilaginosa****	DSM 70403	$P_R \geq 0.85$	Bright red to red brown colonies

*** Tested on a regular basis.
P_R Productivity Ratio

Selectivity: Qualitative
Inoculum: 10^4 CFU
Specification: No growth | total inhibition

Microorganism	Test strain	Specification
Saccharomyces cerevisiae	WDCM 00058	No growth | total inhibition

Specificity: Qualitative
Inoculum: 10^3 CFU
TSA spread plate as control

Microorganism	Test strain	Specification | Morphology
*Penicillium commune****	DSM 2211	Grey blue, fluffy colonies

*** Tested on a regular basis.

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.

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