SARTORIUS

Product Information

Azide Biosart® 100 Nutrient Media

Introduction

Enterococci serve as indicator organisms for fecal contamination. They are less sensitive to chemical treatments compared to *Escherichia coli,* making them detectable for longer periods, such as in wastewater and chlorinated water.

Azide Biosart® 100 Nutrient Media is used for the detection and enumeration of intestinal enterococci. It is designed for cultivating these microorganisms from raw materials, water (general quality), natural water, wastewater, beverages, food and other products.

Azide functions as an inhibitor, suppressing the growth of a broad spectrum of microorganisms, thereby enhancing the selectivity for enterococci. The colonies of enterococci exhibit a distinctive red morphology, due to the reduction of triphenyltetrazolium chloride (TTC) to formazan, with bromocresol purple serving as the indicator dye.

Technical Specifications

Order No.	16400-02----KF-K (50 units)
Media	Azide (KF Streptococcus media)
Color	Purple
Storage	Refrigerate (2 - 8 °C) after arrival*, dark and dry, use before expiry date on the label
Shelf Life	9 months
For Use With	Biosart® 100 Monitor (16402) with green membrane filter and dark green grid, 0.45 µm
References	APHA (food)[1], APHA (water)[2]

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

Media Formulation**

Ingredients	g/L
Peptone from casein	5
Peptone from meat	5
Yeast extract	10
Sodium chloride	5
Sodium β-glycerophosphate	10
D(+)-Maltose monohydrate	20
D(+)-Lactose monohydrate	1
Sodium azide	0.4
Bromocresol purple	0.0225
TTC solution (1%)	20 mL
Water (AP-Quality)	Ad 1,000 mL

pH 7.2 ± 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 and close the lid to transform the monitor into a petri dish.

Incubation Conditions

44 ± 4 hours at 36 ± 2 °C.

Evaluation and Typical Results

Enterococci typically form red, pink or reddish-brown colonies with a diameter of 0.5 – 2 mm.

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: 44 ± 4 hours at 36 ± 2 °C
Specification: ≥ 85% membrane filtration on control agar as reference

Microorganism	Test strain	Specification	Morphology
Enterococcus faecalis	WDCM 00087	$P_R \geq 0.85$	Red, maroon to bright red colonies
Enterococcus faecium	WDCM 00010	$P_R \geq 0.85$	Red, maroon to bright red colonies

P_R Productivity Ratio

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

Microorganism	Test strain	Specification
Escherichia coli	WDCM 00012	No growth | total inhibition
*Staphylococcus aureus***	WDCM 00032	No growth | total inhibition
*Pseudomonas aeruginosa***	WDCM 00026	No growth | total inhibition

*** 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.

Literature

1. APHA (food): American Public Health Association: Compendium of methods for the microbiological examination of foods
2. APHA (water): American Public Health Association, American Water Works Association (AWWA) and Water Environment Federation (WEF): Standard Methods for the Examination of Water and Wastewater

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