

Lauryl Sulfate Biosart® 100 Nutrient Media



Introduction

Lauryl Sulfate Biosart® 100 Nutrient Media is used for the detection and enumeration of *Escherichia coli* and coliform bacteria. Lactose fermenting bacteria form yellow colonies, lactose negative colonies grow colorless or red. The additive sodium lauryl sulfate largely inhibits the growth of undesirable microbial flora.

Technical Specifications

Order No.	16400-02----LS-K (50 units)
Media	Lauryl sulfate/ Lauryl Tryptose Broth
Color	Red
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 (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
Peptone	39 g
Yeast extract	6 g
Lactose	30 g
Phenol red	0.2 g
Sodium lauryl sulphate	1.0 g
Water (AP-Quality)	Ad 1,000 mL

pH 6.8 ± 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

ISO 4831: 24 ± 3 to 48 ± 2 hours at 30 ± 2 °C.

ISO 7251: 24 ± 3 to 48 ± 2 hours at 36 ± 2 °C.

Evaluation and Typical Results

E. coli and coliform bacteria form 1 - 2 mm diameter yellow colonies surrounded by a yellow zone.

Remarks

Further identification steps needed to verify the bacteria strain.

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: ISO 4831: 24 ± 3 to 48 ± 2 hours at 30 ± 2 °C; ISO 7251: 24 ± 3 to 48 ± 2 hours at 36 ± 2 °C

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

Microorganism	Test strain	Specification	Morphology
<i>Escherichia coli</i>	WDCM 00012	$P_r \geq 0.85$	Lemon yellow, shiny colonies
<i>Klebsiella aerogenes</i> ***	WDCM 00175	$P_r \geq 0.85$	Yellow colonies, membrane filter red
<i>Citrobacter freundii</i> ***	WDCM 00006	$P_r \geq 0.85$	Yellow colonies, membrane filter red

*** Tested on a regular basis.

P_r Productivity Ratio

Selectivity: Qualitative

Inoculum: 10⁴ CFU

Specification: No growth | total inhibition

Microorganism	Test strain	Specification
<i>Enterococcus faecalis</i>	WDCM 00087	No growth total inhibition

Specificity: Qualitative

Inoculum: 10³ CFU

TSA spread plate as control

Microorganism	Test strain	Specification Morphology
<i>Proteus mirabilis</i>	WDCM 00023	Reddish colonies


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 and images 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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