SARTORIUS

Product Information

# Endo Biosart® 100 Nutrient Media

## Introduction

Coliform bacteria serve as indicator organisms for fecal contamination.

Endo Biosart® 100 Nutrient Media is used for the detection and enumeration of *E. coli* and coliform bacteria. It is designed for cultivating these microorganisms from raw materials, water (general quality), natural water, wastewater, beverages, food and other products.

Sodium sulfite and fuchsine function as inhibitors, suppressing the growth of a Gram-positive bacteria. Colonies of coliform bacteria fermenting lactose as a carbon source turn pink due to the reaction of acetaldehyde, a fermentation product, with sodium sulfite and fuchsine. In *E. coli* colonies, this reaction is very strong, resulting in a metallic sheen. Non-coliform bacteria grow colorless.

## Technical Specifications

| | |
|---|---|
| **Order No.** | 16400-02----EN-K (50 units) |
| **Media** | Endo |
| **Color** | Pink |
| **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 |
|---|---|
| Thiopeptone | 5 |
| Tryptose | 10 |
| Yeast extract | 1.5 |
| Sodium chloride | 5 |
| Casitone | 5 |
| Lactose | 12.5 |
| Monopotassium phophate | 1.375 |
| Dipotassium phophate | 4.375 |
| Sodium lauryl sulfate | 0.05 |
| Basic Fuchsin | 1.05 |
| Ethanol | 20 mL |
| Water (AP-Quality) | Ad 1,000 mL |

pH 7.3 ± 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

18 - 24 hours at 36 ± 2 °C.

### Evaluation and Typical Results

*Escherichia coli* forms red colonies with a metallic sheen and a red dot at the underside of the membrane. Other coliforms grow as dark to light red colonies without metallic sheen. Colorless colonies of lactose-negative bacteria are not counted.

## 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: 18 - 24 hours at 36 ± 2 °C
Specification: ≥ 85% membrane filtration on control agar as reference

| Microorganism | Test strain | Specification | Morphology |
|---|---|---|---|
| *Escherichia coli* | WDCM 00012 | $P_R \geq 0.85$ | Colonies with metallic green sheen |
| *Escherichia coli*** | WDCM 00013 | $P_R \geq 0.85$ | Colonies with metallic green sheen |

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

**Selectivity**: Qualitative
Inoculum: $10^4$ CFU
Specification: No growth to small glassy colonies

| Microorganism | Test strain | Specification |
|---|---|---|
| *Enterococcus faecalis* | WDCM 00087 | No growth to small glassy colonies |

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

| Microorganism | Test strain | Specification \| Morphology |
|---|---|---|
| *Klebsiella aerogenes**** | WDCM 00175 | Red colonies (examination after 18 ± 1 hours), metallic sheen on control |
| *Proteus mirabilis**** | WDCM 00023 | Glassy, beige to bright pink colonies |
| *Salmonella enterica**** | WDCM 00031 | Glassy, beige to bright pink 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.

**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


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