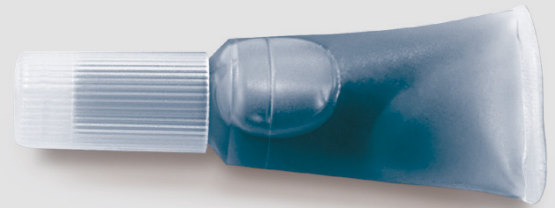


Tergitol TTC Biosart® 100 Nutrient Media



Introduction

Tergitol (sodium heptadecyl sulphate) with TTC (2,3,5-Triphenyltetrazolium chloride) is a selective and differential medium for the detection and enumeration of coliform bacteria and *E. coli* according to Pollard (modified according to Chapman). The medium is used for cultivating microorganisms in raw materials, water (general quality), waste water, beverages, foods and other products.

Coliform bacteria demonstrate high recovery rates, while Gram-positive microorganisms are inhibited due to the presence of Tergitol™, and *Proteus* swarming is reduced.

Coliform bacteria ferment lactose, leading to acidification, which results in a yellow coloration of the medium due to bromothymol blue as a pH indicator. Lactose non-fermenters exhibit a blue-colored medium. Most viable cells, except for *E. coli* and *K. aerogenes*, reduce TTC to formazan, which is slightly soluble and red-colored. This differentiation allows for distinguishing between these species.

Technical Specifications

Order No.	16400-02----TT-K (50 units)
Media	Tergitol TTC/ Lactose TTC Broth
Color	Petrol blue
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
1% Tergitol™ Solution	10 mL
Peptone from meat	10 g
Lactose monohydrate	20 g
Yeast extract	6 g
Bromothymol blue	0.05 g
Meat extract	5 g
2,3,5-Triphenyltetrazolium chloride (TTC, 1%)	5 mL
Water (AP-Quality)	Ad 1,000 mL

pH 8.0 ± 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

18 - 24 hours at 36 ± 2 °C.

Evaluation and Typical Results

Lactose-positive microorganisms form yellow-orange colonies with a yellow surrounding and have a yellow dot below the membrane filter. According to ISO 9308-1 all colonies that show yellow color below the membrane filter are counted as positive.

Remarks

Tergitol™-7 inhibits Gram-positive colonies and minimizes the swarming of *Proteus*. Further differentiations of *E. coli* and coliforms with Oxidase- and Indol-Tests are required.

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
<i>Escherichia coli</i>	WDCM 00012	$P_R \geq 0.85$	Dark orange to yellow orange colonies, yellow color beyond the membrane
<i>Klebsiella aerogenes</i> ***	WDCM 00175	$P_R \geq 0.85$	Shiny red colonies
<i>Citrobacter freundii</i> ***	WDCM 00006	$P_R \geq 0.85$	Dark orange to yellow orange colonies, yellow color beyond the membrane

*** Tested on a regular basis.

P_R Productivity Ratio

Specificity: Qualitative

Inoculum: 10³ CFU

TSA spread plate as control

Microorganism	Test strain	Specification Morphology
<i>Enterococcus faecalis</i>	WDCM 00087	Small rose colonies
<i>Pseudomonas aeruginosa</i>	WDCM 00026	Red colonies, blue colored medium


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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