BacterLab Division

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SURFACE SAMPLE COLLECTION MEDIUM

BacterContact™ Tryptic Soy Agar + Lactamator 500 IU

Ready-to-use medium on 60mm plates for environmental monitoring with inactivation of β-lactam antibiotics.

Code: 4109032

1. INTENDED USE

BacterContact™ Tryptic Soy Agar + Lactamator 500 IU is a general purpose medium used for environmental monitoring with inactivation of β-lactam antibiotics (penicillins, cephalosporins and carbapenems).

The packaging with semi-permeable Cellophane film helps balance the humidity of the environment during storage.

2. PRINCIPLES

Casein peptone and soy peptone provide amino acids, nitrogen, carbon, minerals, vitamins and other nutrients which support the growth of microorganism. Sodium chloride maintains the osmotic balance of the medium. Agar is the solidifying agent. Lactamator is a mixture of Penicillinase and Cephalosporinase, designed for the inactivation of a wide range of beta-lactam antibiotics.

- 1 International Unit (IU) is defined as the amount of enzyme needed to hydrolyze 1 µmole of Penicillin G (Penicillinase) or 1 µmole of Cephalosporin C (Cephalosporinase) per minute at pH 7,0 at 25°C.

3. TYPICAL COMPOSITION

For 1 liter of medium (refrance)

Casein Peptone	15,0 g
Soy Peptone	5,0 g
Sodium Chloride	5,0 g
Agar	15,0 g
Lactamator	500 IU

pH of the ready-to-use medium at 25°C: 7,3 ± 0,2

4. PREPARATION

The environmental plates are ready-to-use, no preparation required.

5. INSTRUCTIONS FOR USE

Preparation:

- Prepare a test diagram for the areas that are to be tested and label plates with the corresponding location identification. Ensure that the label cannot be readily wiped off or removed. RODAC plates are prepared so that the agar surface is convex for sampling flat surfaces. Prior to sampling, the plates should be warmed to room temperature in the plastic sleeve for approximately 15 – 20 minutes with agar up and the lid down. Remove the quantity of plates from the sleeve that are required for testing. The location/ site identification should be written on the base (agar portion, not the lid) of the plate.
- Use settle plate sampling method. Alternatively, if sample is being cultured from a swab, inoculate the plates by streaking directly the swab on the medium surface.

Sampling:

- While wearing gloves, remove the lid from the plate with one hand. With the other hand, hold the base (agar portion of the plate) with thumb and middle finger. Use the index finger to gently press the plate on the test surface. Make sure the entire agar surface touches the test surface. Do not move the plate laterally while sampling as it will spread contaminants making enumeration difficult. Place the lid back on the plate and tape closed. Be sure to clean the test area after sampling to remove any residual growth media remaining on the surface.
- For detection of bacteria incubate the plates at 30 – 35°C for 18 – 72 hours.
- For detection of yeasts and moulds incubate at 20 – 25°C for 2 – 7 days.

6. RESULTS

Observe for the formation of fungal colonies exhibiting typical microscopic and colonial morphology. Record the number of CFU per plate. Colonies should be further isolated and identified with appropriate procedures.

7. QUALITY CONTROL

BacterLab ensures the quality of each product batch by testing with ATCC reference strains.

Reference strains	Incubation conditions	Expected results
Candida albicans ATCC 10231	Incubate for 24 – 72 hours at 20 – 25°C	Good growth
Aspergillus brasiliensis ATCC 16404		
Staphylococcus aureus ATCC 25923	Incubate for 24 – 48 hours at 30 – 35°C	
Escherichia coli ATCC 25922		

8. STORAGE AND TRANSPORT CONDITIONS

- Storage: 2 – 8°C.
- Transportation: Ambient temperature.

9. PACKAGING

- Packaging: 10 plates/ box or as per customer request.

10. SHELF LIFE

- Expiration Date: 06 months from the manufacturing date.

11. BIBLIOGRAPHY

- USP 41 – NF 33 (2018) Microbiological examination of non-sterile products: Microbial enumeration tests; Microbiological examination of non-sterile products: Test for specified microorganisms; Harmonised Methods. Microbiological control and monitoring of aseptic processing environments. The United States Pharmacopeial Convention, Rockville, MD. USA.
- European Pharmacopeia 9.0 (2016) 16th ed. Chapter 2.6.12 - Microbiological examination of non-sterile products: Microbial enumeration tests; Chapter 2.6.13 - Microbiological examination of non-sterile products: Test for specified microorganisms. . Council of Europe Strasbourg, France.

- Swanson, K.J., F.F. Busta, E.H. Peterson, and M.G. Johnson (1992). Colony Count Methods, p. 75-95.
- Solabia Group. *Tryptic Soy Agar*. Biokar Diagnostics.