BacterLab Division

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SURFACE SAMPLE COLLECTION MEDIUM

BacterContact™ Tryptic Soy Agar + 1% Penase + Neutralizing

Ready-to-use medium on 60mm plates for environmental and personnel monitoring with inactivation of penicillins and disinfectants.

Code: 4109029

1. INTENDED USE

BacterContact™ Tryptic Soy Agar + 1% Penase + Neutralizing is a general purpose medium in RODAC (Replicate Organisms Detection and Counting) plates used for environmental and personnel monitoring with inactivation of penicillins and disinfectants. 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. Histidine inactivates aldehydes. Lecithin neutralizes quaternary ammonium compounds. Polysorbate 80 (Tween 80) is effective against phenolic compounds and mercurial derivates. Sodium thiosulfate neutralizes halogen compounds. Penase is a preparation of penicillinase for inactivating residuals of penicillins.

- 1 Levy Unit (LU) is defined as the amount of penicillinase that inactivates 59,3 IU of Penicillin G per hour at pH 7,0 at 25°C.
- 1 International Unit (IU) is defined as the amount of enzyme needed to hydrolyze 1 µmole of Penicillin G (Penicillinase) 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
Histidine	1,0 g
Lecithin	0,7 g
Polysorbate 80	5,0 g
Sodium Thiosulfate	0,5 g
Penase	10 mL

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.

- RODAC plates are recommended for use in air sampling equipment as well as for surface sampling. Selected surfaces are sampled by firmly pressing the agar medium against the test area. Plates are in intended for personnel hygiene monitoring (clothing, gloves or hands) as well.

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 48 – 72 hours at 20 – 25°C	Good growth
Aspergillus brasiliensis ATCC 16404		
Staphylococcus aureus ATCC 25923	Incubate for 18 – 24 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

- EN ISO 11133:2014+Amd1:2018+Amd2:2020. Microbiology of food, animal feed and water − Preparation, production, storage and performance testing of culture media.
- USP 41 NF 36 (2018): Microbiological Examination of Non-Sterile Products: Microbial Enumeration Tests; Microbiological Control and Monitoring of Aseptic Processing Environments.
- EP 9.0 (2016): 2.6.12. Microbial examination of non-sterile products (total viable aerobic count).
- JP 16th edition (2011): 4.05 Microbial Limit Test.
- EU GMP Medicinal Products for Human and Veterinary use (2008): Annex1 Manufacture of Sterile Medicinal Products.
- FDA Guidance for Industry (2004): Sterile Drug Products Produced by Aseptic Processing - Current Good Manufacturing Practice.
- 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.