BD BBL™ Trypticase™ Soy Agar (Soybean-Casein Digest Agar)

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QUALITY CONTROL PROCEDURES

I INTRODUCTION

BD BBL™ Trypticase™ Soy Agar is a general purpose medium which supports the growth of fastidious as well as nonfastidious microorganisms.

II PERFORMANCE TEST PROCEDURE

1. Inoculate representative samples with the cultures listed below diluted to contain <100 CFU per 0.1 mL.
   a. Add 0.1 mL of the appropriate dilution to each plate and spread-inoculate using a sterile glass spreader.
   b. Incubate at 32.5 ± 2 °C for 1 day aerobically (*), or for 2 days aerobically (**).
2. Examine plates for up to 48h for amount of growth and colony size.
3. Expected Results

Organisms	ATCC®	Recovery
* *Staphylococcus aureus*	6538	50% - 200% recovery from control lot
**Pseudomonas aeruginosa*	9027	50% - 200% recovery from control lot
**Bacillus subtilis*	6633	50% - 200% recovery from control lot
** *Candida albicans*	10231	50% - 200% recovery from control lot
** *Aspergillus brasiliensis*	16404	50% - 200% recovery from control lot

*Recommended organism strain for User Quality Control.

III ADDITIONAL QUALITY CONTROL

1. Examine plates as described under “Product Deterioration.”
2. Visually examine representative plates to assure that any existing physical defects will not interfere with use.
3. Determine the pH potentiometrically at room temperature for adherence to the specification of 7.3 ± 0.2.
4. Note the firmness of plates during the inoculation procedure.
5. Incubate uninoculated representative plates at 30 ± 1 °C for 60 h and examine for microbial contamination.

PRODUCT INFORMATION

IV INTENDED USE

BD BBL Trypticase Soy Agar is used for the isolation and cultivation of non-fastidious and fastidious microorganisms. It is not the medium of choice for anaerobes.

V SUMMARY AND EXPLANATION

The nutritional composition of **BD BBL Trypticase** Soy Agar has made it a popular medium for many years. It is the medium specified as Soybean-Casein Digest Agar Medium in *The United States Pharmacopeia* for the total aerobic microbial count portion of the microbial limit testing procedures.[1] The medium is used for a multitude of purposes including maintenance of stock cultures, plate counting, isolation of microorganisms from a variety of specimen types and as a base for media containing blood.[2-4] It is included in the compendia of methods for the examination of water, wastewater and foods.[5,6]

VI PRINCIPLES OF THE PROCEDURE

The combination of casein and soy peptones in **BD BBL Trypticase** Soy Agar renders the medium highly nutritious by supplying organic nitrogen, particularly amino acids and longer-chained peptides. The sodium chloride maintains osmotic equilibrium.

VII REAGENTS

BD BBL Trypticase Soy Agar

Approximate Formula* Per Liter Purified Water

Pancreatic Digest of Casein	15.0 g	Sodium Chloride	5.0 g
Papaic Digest of Soybean	5.0 g	Agar	15.0 g

*Adjusted and/or supplemented as required to meet performance criteria.

Warnings and Precautions: For *in vitro* Diagnostic Use in Singapore

If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation.

Pathogenic microorganisms, including hepatitis viruses and Human Immunodeficiency Virus, may be present in clinical specimens. “Standard Precautions”[7-10] and institutional guidelines should be followed in handling all items contaminated with blood and other body fluids. After use, prepared plates, specimen containers and other contaminated materials must be sterilized by autoclaving before discarding.

Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use. Minimize exposure to light. Prepared plates stored in their original sleeve wrapping at 2–8 °C until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

VIII SPECIMEN COLLECTION AND HANDLING

Specimens suitable for culture may be handled using various techniques. For detailed information, consult appropriate texts.[11,12] Specimens should be obtained before antimicrobial therapy has been administered. Provision must be made for prompt delivery to the laboratory.

IX PROCEDURE

Material Provided: BD BBL Trypticase Soy Agar

Materials Required But Not Provided: Ancillary culture media, reagents, quality control organisms and laboratory equipment as required.

Test Procedure: Observe aseptic techniques.

Streak the specimen as soon as possible after it is received in the laboratory. The streak plate is used primarily to isolate pure cultures from specimens containing mixed flora.

Alternatively, if material is being cultured directly from a swab, roll the swab over a small area of the surface at the edge; then streak from this inoculated area.

Agar surfaces should be smooth and moist, but without excessive moisture which could cause confluent growth.

Since many pathogens require carbon dioxide on primary isolation, plates may be incubated in an atmosphere containing approximately 3–10% CO_2.

Incubate plates at 35 ± 2 °C for 18–24 h.

User Quality Control: See "Quality Control Procedures."

Quality Control requirements must be performed in accordance with applicable local, state and/or federal regulations or accreditation requirements and your laboratory's standard Quality Control procedures. It is recommended that the user refer to pertinent CLSI guidance and CLIA regulations for appropriate Quality Control practices.

X RESULTS

After incubation most plates will show an area of confluent growth. Because the streaking procedure is, in effect, a "dilution" technique, diminishing numbers of microorganisms are deposited on the streaked areas. Consequently, one or more of these areas should exhibit isolated colonies of the organisms contained in the specimen. In addition, growth of each organism may be semi-quantitatively scored on the basis of growth in each of the streaked areas.

XI LIMITATIONS OF THE PROCEDURE

For identification, organisms must be in pure culture. Morphological, biochemical, and/or serological tests should be performed for final identification. Consult appropriate texts for detailed information and recommended procedures.[11-16]

XII AVAILABILITY

Cat. No.	Description
251185	**BD BBL™ Trypticase™** Soy Agar (Soybean-Casein Digest Agar), Pkg. of 20 plates
251261	**BD BBL™ Trypticase™** Soy Agar (Soybean-Casein Digest Agar), Ctn. of 100 plates

XIII REFERENCES

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