

BD BBL™ Prepared Isolator Pack Plates for Environmental Monitoring Trypticase™ Soy Agar, Isolator Pack

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INTENDED USE

Trypticase Soy Agar (TSA) Isolator Pack plates are a general-purpose medium which supports the growth of a variety of bacteria and fungi. The Isolator Pack plates are particularly useful for microbial load testing when monitoring Isolator Systems, clean rooms, and other environmentally controlled areas when sterility of the medium is of importance.

SUMMARY AND EXPLANATION

The nutritional composition of the **Trypticase Soy Agar** base has made it a popular medium for many years. The medium is used for a multitude of purposes, including maintenance of stock cultures, aerobic microbial counts, isolation of microorganisms from a variety of specimen types and as a base for media containing blood.¹⁻³ It is included in the compendia of methods for the examination of water, wastewater and foods.^{4,5}

The 100 x 15 mm and the 150 x 15 mm style plates can be used for active and passive air sampling.

Collection of samples from the same area before and after cleaning and treatment with a disinfectant permits the evaluation of the efficacy of sanitary procedures.

The multi-wrap design has been validated to protect the medium from vapor hydrogen peroxide when used in an Isolator System.

PRINCIPLES OF THE PROCEDURE

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

Because the entire multi-wrapped product is subjected to a sterilizing dose of gamma radiation, the contents inside the outer bag are sterile.⁶ This allows the inner bags to be aseptically removed and brought into an environmentally-controlled area without introducing contamination.

The inner rolled sterile bag is included as a transport device.

REAGENTS

Formula:

Trypticase™ Soy Agar

Approximate Formula* Per Liter Purified Water

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

*Adjusted and/or supplemented as required to meet performance criteria and, additionally, to compensate for radiation effects.

Precautions: For Laboratory Use.

Observe aseptic techniques and established precautions against microbiological hazards throughout all procedures. After use, prepared plates and other contaminated materials should be sterilized by autoclaving.

Storage Instructions: On receipt, store plates in the dark with top side up (agar bed at bottom) at 2 – 8°C. Do not freeze or overheat. Do not open until ready to use. Minimize exposure to light.

Prepared plates stored in their original wrapping at 2 – 8°C should be warmed to room temperature prior to use.

The product is validated from the time of manufacture to be stable at room temperature (25°C) for 192 h (8 days). Plates may be inoculated up to their expiration date and incubated for the recommended incubation times. Discard the unused portion of all packaging.

Product Deterioration: The contents of unopened or undamaged packages are sterile. At the time the integrity of the outer and/or inner bags or seals is compromised, the product should no longer be considered sterile. Do not use packages if they show evidence of damage, microbial contamination, drying or other signs of deterioration.

SPECIMEN COLLECTION AND HANDLING

Samples suitable for culture may be obtained using various techniques. Samples should be transported in the appropriate manner.

PROCEDURE

Material Provided: Depending upon which product is ordered, one of the prepared plate types listed above is provided.

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

Instructions: The bags may be opened by peeling apart the two films or by cutting with sterile scissors. To peel open, grasp and hold the edge of the clear

plastic and pull the corner of the opaque white layer away from the plastic. If sterility of the inner bag and medium is of importance for your procedure, open the outer bag using aseptic technique. Once the outer bag is opened, appropriate measures should be used to maintain the sterility of the inner bags and their contents.

For general use, plate the sample as soon as possible with the intent for colony isolation. If the sample 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.

The agar surface should be smooth and moist, but without excessive moisture that could cause confluent growth. Incubate at temperatures and atmospheres suitable for isolation of specific organisms.^{1,2,4,5,7}

User Quality Control:

1. Examine plates for signs of deterioration as described under "Product Deterioration."
2. Check performance by inoculating a representative sample of plates with pure cultures of stable control organisms that give known, desired reactions. The following test strains are recommended:

Test Strain	Expected Results
<i>Staphylococcus aureus</i> ATCC™ 6538	Growth
<i>Bacillus subtilis</i> ATCC 6633	Growth

EXPECTED RESULTS

After incubation, it is desirable to have isolated colonies of organisms from the original sample.

Subculture colonies of interest so that positive identification can be made by means of biochemical testing and/or microscopic examination of organism smears.^{1,2,7}

LIMITATIONS OF THE PROCEDURE

This prepared plated medium is intended for the enumeration of microorganisms from the air of controlled environments. For identification, the organisms must be in pure culture. Biochemical tests may be performed for complete identification. Appropriate texts should be consulted for further information.^{1,2,7}

AVAILABILITY

Cat. No.	Description
292651	Trypticase Soy Agar, Isolator Pack, Pkg. of 10 100 mm x 15 mm style plates.
292652	Trypticase Soy Agar, Isolator Pack, Ctn. of 100 100 mm x 15 mm style plates.
292272	Trypticase Soy Agar, Isolator Pack, Pkg. of 5 150 mm x 15 mm style plates.

REFERENCES

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4. Greenberg, A.E., L.S. Clesceri, and A.D. Eaton (ed.). 1998. Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association, Washington, D.C.
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6. Association for the Advancement of Medical Instrumentation. 1984. Process control guidelines for gamma radiation sterilization of medical devices. Association for the Advancement of Medical Instrumentation, Arlington, Va.
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TECHNICAL INFORMATION: In the United States, telephone Technical Services, toll free (800) 638-8663.

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