

BD BBL™ Prepared RODAC™ Plate **Trypticase™ Soy Agar with 5% Sheep Blood (TSA II)**

8807641JAA
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INTENDED USE

Prepared **RODAC™** (Replicate Organism Detection and Counting) plates may be used for the detection and enumeration of microorganisms present on nonporous surfaces.

SUMMARY AND EXPLANATION

The primary purpose of the **RODAC** plate is to monitor surface cleanliness, i.e., the presence and number of microorganisms as determined by the appearance of colonies on the surface of an agar medium following application to the test surface.¹⁻³

PRINCIPLES OF THE PROCEDURE

Each prepared **RODAC** plate contains a raised convex nutrient agar bed for application directly to the surface being tested.

The combination of casein and soy peptones in the **Trypticase™** Soy Agar base renders the medium highly nutritious by supplying organic nitrogen, particularly amino acids and larger-chained peptides. Sodium chloride maintains osmotic equilibrium. Defibrinated sheep blood is widely used for enriching agar base media.⁶ This medium provides excellent growth and appropriate hemolytic reactions with fastidious and nonfastidious microorganisms.

The prefilled **BBL RODAC** plate is specifically modified to lock the agar bed in place during transit and use. The 65 x 15 mm style dish has a special 10 mm grid to facilitate counting colonies.

REAGENTS

Formula:

Trypticase™ Soy Agar with 5% Sheep Blood (TSA II)

Approximate Formula* Per Liter Purified Water

Pancreatic Digest of Casein.....	14.5 g
Papaic Digest of Soybean Meal	5.0 g
Sodium Chloride	5.0 g
Agar	14.0 g
Growth Factors	1.5 g
Sheep Blood, defibrinated	5%

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

Warnings and Precautions: For Laboratory Use

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.

PROCEDURE

Material Provided: **Trypticase** Soy Agar with 5% Sheep Blood (TSA II)

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

Test Procedure: Observe aseptic techniques and established precautions against microbiological hazards throughout all procedures.

1. Use a xylene-base felt-tip marker, wax pencil or label to consecutively number the plates that are to be used.
2. Note on the report form the location of the site to be tested. Remove the lid and hold it to avoid accidental contamination. Apply the plate's agar surface directly to the surface being tested and exert moderate vertical pressure. Replace the cover and repeat with additional plates as required for the sampling program. *Note:* Caution should be exercised to avoid rubbing on the site; otherwise, the agar bed may be broken and the usefulness of the plate affected.
3. After samples have been collected, incubate all plates for 48 – 72 h at 35°C.
4. When incubation has been completed, count the colonies. An automatic colony counter is recommended, or the grid on the bottom of the **RODAC** plate will serve as a useful guide for estimation.

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>Streptococcus pyogenes</i> ATCC™19615	Growth
<i>Streptococcus pneumoniae</i> ATCC 6305	Growth, alpha hemolysis
<i>Staphylococcus aureus</i> ATCC 25923	Growth
<i>Escherichia coli</i> ATCC 25922	Growth

RESULTS

Plates should be examined for the types and number of bacterial colonies and for hemolytic reactions. Because interpretations are relative, each laboratory should establish its own criteria for what constitutes an acceptable microbial load.

LIMITATIONS OF THE PROCEDURE

This prepared plated medium is intended for the detection and enumeration of microorganisms. For identification, organisms must be in pure culture. Consult appropriate texts for detailed information and recommended procedures.⁴⁻⁶

AVAILABILITY

Cat. No.	Description
297759	BBL™ Trypticase™ Soy Agar with 5% Sheep Blood, Pkg. of 20 RODAC™ plates

REFERENCES

1. Hall, L.B., and M.J. Hartnett. 1964. Measurement of the bacterial contamination on surfaces in hospitals. *Publ. Health. Rep.* 79:1021-1024.
2. Bartlett, R.C., D.H.M. Groschel, D.C. Mackel, G.F. Mallison, and E.H. Spaulding. 1974. Control of hospital-associated infections. B. *Microbial surveillance*, p. 848-849. *In* E.H. Lennette, E.H. Spaulding, and J.P. Truant (ed.), *Manual of clinical microbiology*, 2nd ed. American Society for Microbiology, Washington, D.C.
3. Cannon, R.Y., C.E. Beckelheimer, and R.B. Maxy. 1985. Microbiological tests for equipment, containers, water and air, p. 289-304. *In* G.H. Richard son (ed.), *Standard methods for the examination of dairy products*, 15th ed. American Public Health Association, Washington, D.C.
4. Forbes, B.A., D.F. Sahn, and A.S. Weissfeld. 1998. *Bailey & Scott's diagnostic microbiology*, 10th ed. Mosby, Inc., St. Louis.
5. Murray, P.R., E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover (ed.). 1995. *Manual of clinical microbiology*, 6th ed. American Society for Microbiology, Washington, D.C.
6. Holt, J.G., N.R. Kreig, P.H.A. Sneath., J.T. Staley, and S.T. Williams (ed.). 1994. *Bergey's Manual™ of determinative bacteriology*, 9th ed. Williams & Wilkins, Baltimore.

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