TRYPTIC SOY AGAR

WITH LECITHIN AND POLYSORBATE 80

RODAC PLATE

- For in vitro use only - Catalogue No. PT84R

Our Tryptic Soy Agar (with lecithin and polysorbate 80) RODAC plates are specifically designed to monitor surfaces for contamination, and efficacy of clean up procedures. RODAC plates are overfilled to obtain a raised meniscus allowing easy contact of the agar with the testing surface; a 10-mm grid is also present on the plates to aid in enumeration of colonies.

Pancreatic digest of casein and soybean meal provide amino acids and other growth factors, and sodium chloride helps maintain the osmotic balance for the bacterial cells. Lecithin and polysorbate 80 (Tween 80) are incorporated into the medium to help neutralize residual chemicals and disinfectants on the testing surface that may inhibit bacterial growth. Lecithin neutralizes quaternary ammonium compounds, while polysorbate 80 is used to neutralize phenolic compounds, formalin, and hexachlorophene. Ethanol is also neutralized by the synergistic action of lecithin and polysorbate 80.

Formula per Litre of Medium

Pancreatic Digest of Casein	15.0 g
Papaic Digest of Soybean Meal	5.0 g
Sodium Chloride	5.0 g
Agar	20.5 g
Lecithin	0.7 g
Polysorbate 80	5.0 g

pH 7.3 ± 0.2

Recommended Procedure

1. Allow medium to reach room temperature.
2. Choose a testing surface.
3. Open lid carefully and apply light downward pressure so that entire surface of the agar makes contact with the testing surface. Avoid pulling or sweeping motions that may damage the agar surface.
4. Re-cover the plate and repeat with additional plates if desired.
5. Incubate plates aerobically at 35°C for 48 hours, and 25ºC for 7 days.

Interpretation of Results

After the incubation period count the number of colonies manually or use an automatic colony counter. Only enumerate the colonies within the grid area (A1-D4) since only the complete squares are of known area (10-mm x 10-mm). Refer to literary sources to determine acceptable limits for the surface being tested.

Subculture those colonies of interest so that a positive identification can be made by further serological and biochemical tests.

- *Ensure testing surface is **dry** before sampling*
- *Sampling must be performed with care; rubbing or sliding motions may damage the agar bed and/or result in inaccurate colony counts*
- *Total plate count should be between 0 and 200. Plates with more than 200 colonies should by considered too numerous to count*
- *Spreader colonies should be counted as only one colony and may make accurate enumeration difficult*

Quality Control

After checking for correct pH, colour, depth, and sterility, the following organisms are used to determine the growth performance of the completed medium.

Organism	Expected Results
Escherichia coli ATCC 25922	Growth
Staphylococcus aureus ATCC 25923	Growth
Pseudomonas aeruginosa ATCC 27853	Growth
Salmonella typhimurium ATCC 13311	Growth

Storage and Shelf Life

Our TSA with lecithin and polysorbate 80 should be stored away from direct light at 4°C to 8°C. Under these conditions this medium has a shelf life of 10 weeks from the date of manufacture.

References

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2. Favero. Microbiological sampling of surfaces – a state of the art report. Biological Contamination Control Committee 1967.
3. Dell LA. Aspects of microbiological monitoring for nonsterile and sterile manufacturing environments. Pharm Technol 1979; 3:47-51.
4. MacFaddin JF. Media for isolation cultivation identification maintenance of medical bacteria, vol 1. Baltimore, MD: Williams and Wilkins, 1985.
5. Balows A, Hausler WJ, Herrmann KL et al. Manual of clinical microbiology. 5th ed. Washington: ASM, 1991.
6. Vanderzant C, Spittstoesser DF, Eds. Compendium of methods for the microbiological examination of foods. 3rd ed. Washington, DC: APHA, 1992.

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