TRYPTIC SOY AGAR (TSA)

INTENDED USE
Remel Tryptic Soy Agar (TSA) is a solid medium recommended for use in qualitative procedures for the isolation and cultivation of a wide variety of organisms. Tryptic Soy Agar slants may be used to cultivate, store, and ship bacterial cultures.

SUMMARY AND EXPLANATION
This medium is prepared according to the formula for Soybean-Casein Digest Agar Medium recommended by the *United States Pharmacopeia* (USP).[1] TSA is also recommended in *Manual of Clinical Microbiology* and *Diagnostic Microbiology* for use in antibiotic susceptibility testing procedures, for sterility testing, and for maintenance of stock cultures in clinical microbiology laboratories.[2-4]

PRINCIPLE
Casein and soy peptones provide nitrogen, amino acids, and peptides necessary for the growth of a wide variety of organisms. Dextrose is a ready source of energy. Sodium chloride supplies essential electrolytes and maintains osmotic equilibrium. TSA may be supplemented with blood to facilitate the growth of more fastidious bacteria or antimicrobial agents to permit the selection of various microbial groups from mixed flora.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone	15.0 g	Soy Peptone	5.0 g
Sodium Chloride	5.0 g	Agar	15.0 g
		Demineralized Water	1000.0 ml

pH 7.3 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE
1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory.
2. If the material is being cultured from a swab, roll the swab over a small area of the agar surface and streak for isolation.
3. Incubate plates aerobically at 33-37°C for 18-24 hours.
4. Observe for typical colony morphology.

Pour Tube: Melt the pour tube in a boiling water bath and cool to 45-50°C. Mix and dispense into a sterile petri dish and proceed with the instructions above.

QUALITY CONTROL
All lot numbers of Tryptic Soy Agar have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL	INCUBATION	RESULTS
Aspergillus brasiliensis ATCC® 16404	Aerobic, up to 72 h @ 25-30°C	Good growth
Bacillus subtilis ATCC® 6633	Aerobic, 18-24 h @ 33-37°C	Good growth
Candida albicans ATCC® 10231	Aerobic, up to 72 h @ 25-30°C	Good growth
Escherichia coli ATCC® 8739	Aerobic, 18-24 h @ 33-37°C	Good growth
Pseudomonas aeruginosa ATCC® 9027	Aerobic, 18-24 h @ 33-37°C	Good growth
Staphylococcus aureus ATCC® 6538	Aerobic, 18-24 h @ 33-37°C	Good growth

BIBLIOGRAPHY

1. United States Pharmacopeia-National Formulary. 2007. 31st ed. United States Pharmacopeial Convention, Rockville, MD.
2. Murray, P.R., E.J. Baron, J.H. Jorgensen, M.L. Landry, and M.A. Pfaller. 2007. Manual of Clinical Microbiology. 9th ed. ASM Press, Washington, D.C.
3. Forbes, B.A., D.F. Sahm, and A.S. Weissfeld. 2007. Bailey and Scott's Diagnostic Microbiology. 12th ed. Mosby Elsevier, St. Louis, MO
4. MacFaddin, J.F. 1985. Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Williams & Wilkins, Baltimore, MD.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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