Puritan® MRSA Transport Medium

Intended use

Puritan® MRSA Transport Medium is an enrichment medium used for isolation of *Staphylococcus aureus spp*, particularly methicillin-resistant *Staphylococcus aureus* (MRSA).

Summary and Explanation

S. aureus is one of the most common causes of skin and soft tissue infection in both the health care and community settings.[1] Enrichment broths are commonly used to increase sensitivity testing for MRSA by increasing isolation rates. Tryptic Soy Broth (TSB) serves as the base medium for Puritan MRSA Transport Medium to enhance the growth of S. *aureus*. TSB contains enzymatic digest of casein and enzymatic digest of soybean meal, which provide amino acids and complex nitrogenous compounds that promote microbial growth. Dextrose acts as a carbon energy source that facilitates growth. Dipotassium phosphate acts as a buffering agent. Sodium chloride is added to inhibit or partially inhibit microorganisms other than *S. aureus*.

Formulation per Liter

TSB powder	30.0g
Sodium Chloride	25.0 g
Demineralized Water	1000 mL

pH 7.3 ± 0.2 @ 25°C

Precautions

For *in vitro* Diagnostic Use

- Clinical specimens are considered biohazard and must be handled in manner to protect laboratory personnel.
- To be used by trained and qualified personnel using aseptic technique.
- Clinical samples may contain human pathogens including hepatitis virus and Human Immunodeficiency Virus. Institutional and universally recognized guidelines should be followed when handling items contaminated with blood and other body fluids.[2]
- Specimen vials and other contaminated materials must be sterilized by autoclave before discarding.
- Do not use if the vial is damaged or detected evidence of contamination, discoloration or leakage.

Storage

For optimum performance, store at 2-25°C. Avoid freezing and overheating.[3, 4]

LABORATORY SPECIMEN PROCESSING

MRSA Transport Medium Collected Sample

1. Vortex the inoculated MRSA transport medium for approximately 10 seconds.
2. Incubate inoculated MRSA transport medium at 35 ± 2°C.
3. Examine the MRSA transport medium for growth after 18-24 hours.
4. Aseptically remove aliquots of the MRSA transport medium and inoculate on to an appropriate selective agar plate.

Opti-Swab™ Liquid Amies Collected Sample

1. Obtain tubes of MRSA Transport Medium and unscrew cap.
2. Vortex the inoculated Opti-Swab™ Liquid Amies for approximately 10 seconds.
3. Unscrew the cap and aseptically transfer the swab from the Opti-Swab Liquid Amies to the MRSA Transport Medium using sterile forceps.
4. Replace cap on both Opti-Swab™ Liquid Amies and MRSA Transport Medium.
5. Follow the procedures stated above for MRSA Transport Medium Collected Sample.

Specimen Collection and Handling

Specimens suitable for culture may be handled using various techniques. For detailed guidance, refer to appropriate references.[5, 6] Specimens should be obtained before antimicrobial agents have been administered.

Quality Control

All batches of Puritan MRSA Transport Medium are tested prior to release for pH and further evaluated for their ability to promote growth of the following organisms:

Control	Incubation	Results
Methicillin-resistant *Staphylococcus aureus ATCC 43300*	Aerobic, 48 hr @ room temperature	Good recovery
Staphylococcus aureus ATCC 6538	Aerobic, 48 hr @ room temperature	Good recovery

Limitations

Definitive identification of MRSA requires additional and/or serological tests. Refer to appropriate reference standards for further instructions.[5, 6]

References

1. National Health and Nutrition Examination Survey (NHANES). 2000. Specimen Collection Procedures Manual.
2. Directive 2000/54/EC of the European Parliament and of the Council of 18 September 2000 on the protection of workers from risk related exposure to biological agents at work. Official Journal of the European Communities. L 262/21–45.
3. Versalovic, J., K.C. Carroll, G. Funke, J.H. Jorgensen, M.L. Landry, D.W. Warnock. 2011. Manual of Clinical Microbiology, 10th ed. American Society for Microbiology. Washington, DC.
4. Miller, J.M. 1996. A guide to specimen management in clinical microbiology. American Society for Microbiology. Washington, DC.
5. Forbes, B.A., D.F. Sahm, A.S. Weissfeld. 2007. Diagnostic Microbiology 12th ed. Mosby. St. Louis, MO.
6. Murray, P.R., E.J. Baron, M.A. Pfaller, F.C. Tenover, R.H. Yolken. 2003. Manual of Clinical Microbiology, 8th ed. American Society for Microbiology. Washington, DC.

Puritan® DIAGNOSTICS

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