

*The world's only
automated system for
mycobacteria growth &
detection without sharps
or glass tubes.*

BD BACTEC™ MGIT™ 960 Mycobacteria Culture System

A Legacy of Leadership

The new **BD BACTEC MGIT 960** System is the next generation in a proven line of mycobacteria testing instruments from BD Biosciences – the undisputed world leader in mycobacteriology. The **BD BACTEC MGIT 960** System builds on the legacy of the **BD BACTEC™ 9000MB** System and the **BD BACTEC™ 460TB** System, the world's first instrumented system for mycobacteria testing and still the benchmark of quality and reliability. The **BD BACTEC MGIT 960** System combines these outstanding features with the technology used in the **MGIT** (Mycobacteria Growth Indicator Tube) System.

A New Level of Simplicity & Performance

The **BD BACTEC MGIT 960** System was designed with simplicity in mind, ensuring maximum productivity with minimal staffing and training.

- **Bar code scanning**

Guides the simple 4-step operating procedure, eliminating potential errors.



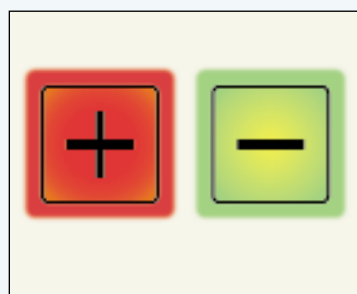
Step 1: Select workflow.



Step 2: Scan tube at instrument.



Step 3: Load where indicated by green light.



Step 4: Remove positives and completed negatives as they occur.

A Commitment to Safety & Performance

*The **BACTEC MGIT 960** System was designed to meet the needs of medium and high volume laboratories and has recently been reported as the system with equivalent performance to the **BD BACTEC 460TB** System.^{1,2}*

- **New plastic tubes enhance safety**

The **BD BACTEC MGIT 960** System accentuates operator safety with new plastic tubes, no sharps and no need to handle or transfer tubes once the system is loaded.

- **Fully automated testing**

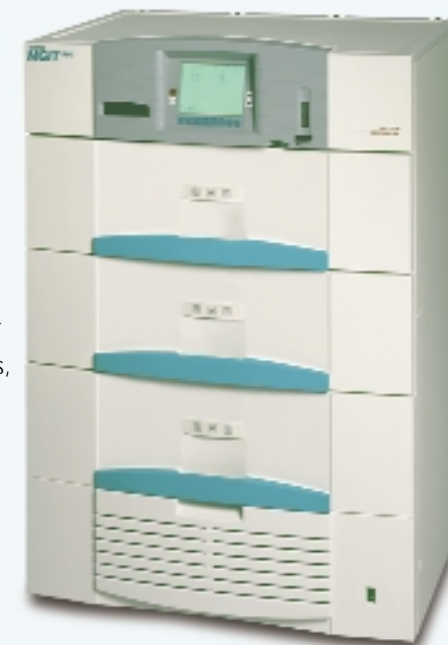
Identifies positives as they occur – often at a faster rate than other instrumented systems.^{2,3,4} Faster results can improve patient care and lower health care costs by reducing hospital stays and optimizing equipment and staff utilization.

- **Unprecedented 960-tube, space-saving capacity**

Features test capability of approximately 8000 specimens per year from a system that makes optimal use of valuable laboratory space.

- **Functions with the new BD EpiCenter™ System for high-power data management**

Use with the **EpiCenter** System multiplies your options. Long-term data storage and historical trending are now possible with bi-directional interface to an LIS. Conduct long-term tracking of individual TB patients and research for susceptibility patterns.



The **BACTEC MGIT 960** instrument automatically directs the placement of each tube within the instrument and indicates positives with both a visual and an audible signal as they occur.

The **BACTEC MGIT 960** System is nonradiometric. It uses **MGIT** media and patented sensors, making efficient use of advanced **fluorometric technology**, which permits highly accurate detection of O₂ consumption without sharps. **Automated quality control** is performed continuously to ensure precise and reliable operation. Results are provided as **positive/negative** and numerical **Growth Units**.

¹Roggenkamp et al. JCM, Vol. 37, No. 11, p. 3711-3712.

²Tortoli et al. JCM, Vol. 37, No. 11, p. 3578-3582.

³Alcaide et al. JCM, Vol. 38, No. 1, p. 398-401.

⁴Hanna et al. JCM, Vol. 37, No. 3, p. 748-752.



Complete Solutions for Mycobacteria Testing



BACTEC™ MGIT™ 960 Susceptibility Tests*

Fully automated AST



BBL™ MGIT™

Advanced fluorometric manual mycobacteria detection



BACTEC™ 9000MB

Fully automated mycobacteria detection system



BACTEC™ 460TB

Automated mycobacteria detection and susceptibility testing



BDProbeTec™ ET

Mycobacterial assays using amplified probe technology for direct detection and culture ID**



Lowenstein-Jensen and Middlebrook

BBL™ Prepared Tubed Media



Falcon™

Sputum Collection System



BBL™ Acid-Fast and Fluorescent Stains

Staining kits and reagents for mycobacteria



BBL™ MycoPrep™

Mycobacterial specimen digestion/decontamination kit

*AST not available in US.
**Mycobacterial assays not available in US.



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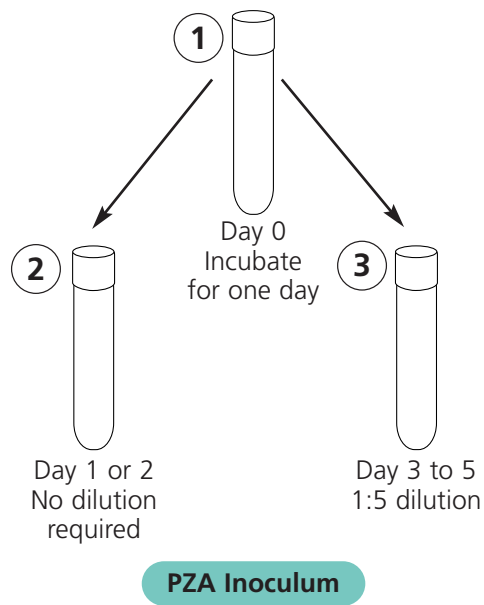
Indispensable to
human health

BD BACTEC™ MGIT™ 960 System for Mycobacteria Testing

Safe Operation and Fast Results in a Fully Automated System

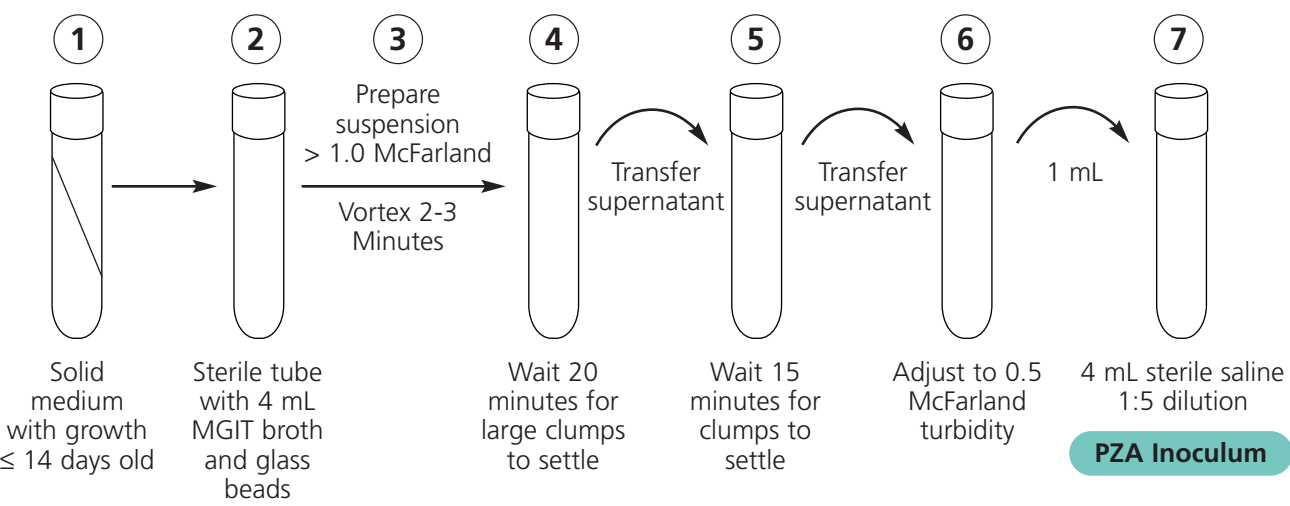
BD BACTEC™ MGIT™ 960 PZA Preparation and Inoculation

From a Positive 7 mL MGIT Tube:



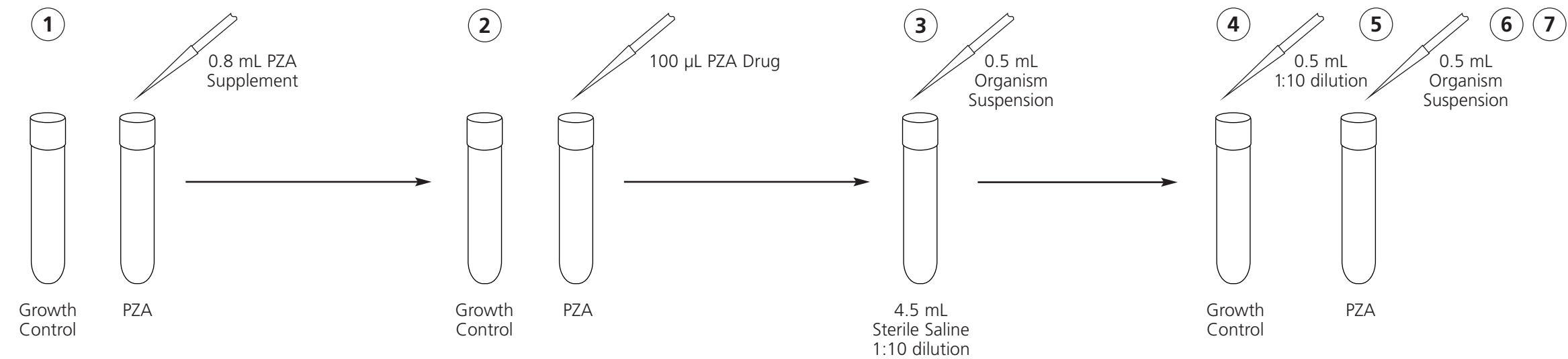
1. Day of Positivity = Day 0 incubate at least one more day after positivity.
2. If tube is 'Day 1' or 'Day 2', go directly to inoculation.
3. If tube is 'Day 3' to 'Day 5', dilute 1 mL of positive broth into 4 mL sterile saline. (1:5 dilution). Mix.

From Solid Media:



1. Use growth on solid medium ≤ 14 days old.
2. Make suspension >1.0 McFarland turbidity standard in MGIT broth containing 8-10 glass beads.
3. Vortex 2-3 minutes.
4. Allow to sit 20 minutes for large clumps to settle.
5. Transfer supernatant fluid to another sterile tube and allow to sit for another 15 minutes.
6. Transfer supernatant fluid to another sterile tube and adjust turbidity to 0.5 McFarland turbidity standard.
7. Dilute 1 mL of final suspension in 4 mL sterile saline. Mix.

MGIT 960 PZA Inoculation:



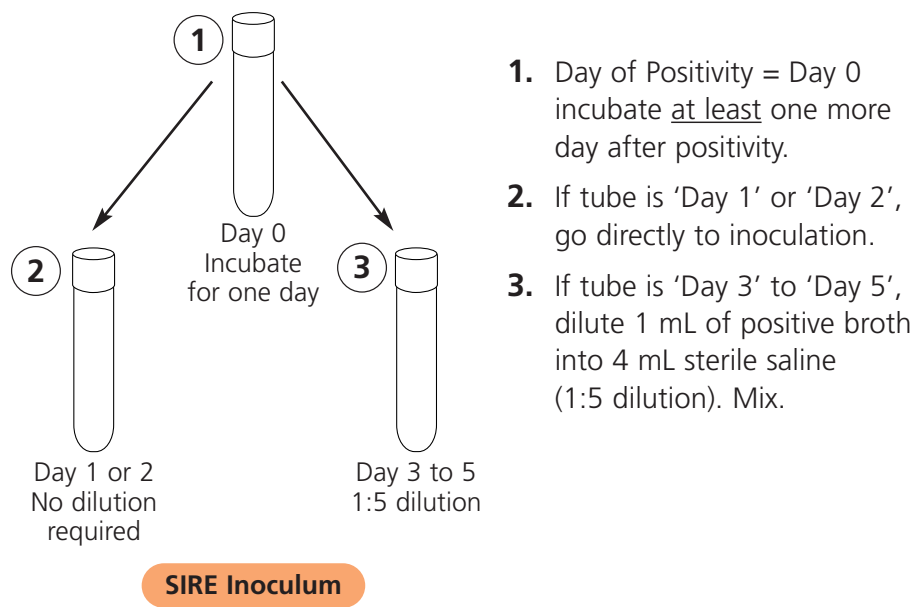
1. Add 0.8 mL BACTEC MGIT 960 PZA Supplement to each tube.
2. Add 100 µL of PZA drug to the tube labeled PZA only.
3. Prepare Growth Control inoculum: Pipette 0.5 mL of organism suspension into 4.5 mL sterile saline to make a 1:10 dilution. Mix.
4. Inoculate the Growth Control tube with 0.5 mL of 1:10 dilution. Mix.
5. Inoculate the PZA drug containing tube with 0.5 mL of organism suspension (undiluted). Mix.
6. Ensure inoculated tubes are thoroughly mixed.
7. Place tubes into appropriate AST set carrier and enter into BACTEC MGIT 960 instrument. Select PZA as the carrier set definition.



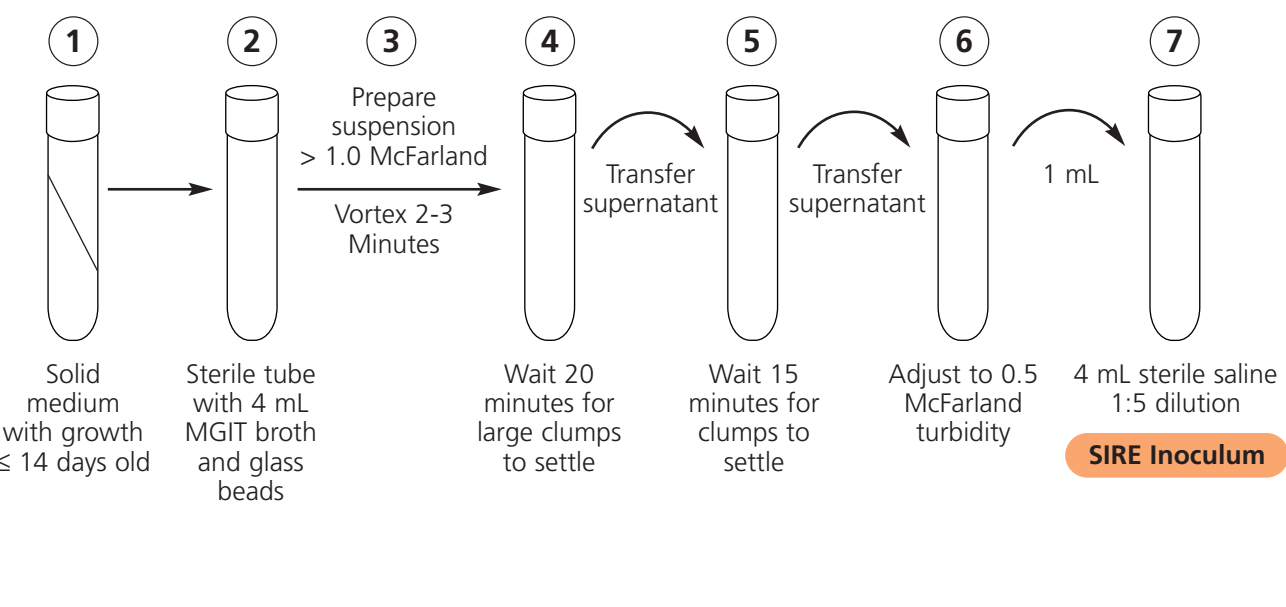
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www.bd.com/clinical

BD BACTEC™ MGIT™ 960 SIRE Preparation and Inoculation

From a Positive 7 mL MGIT Tube:

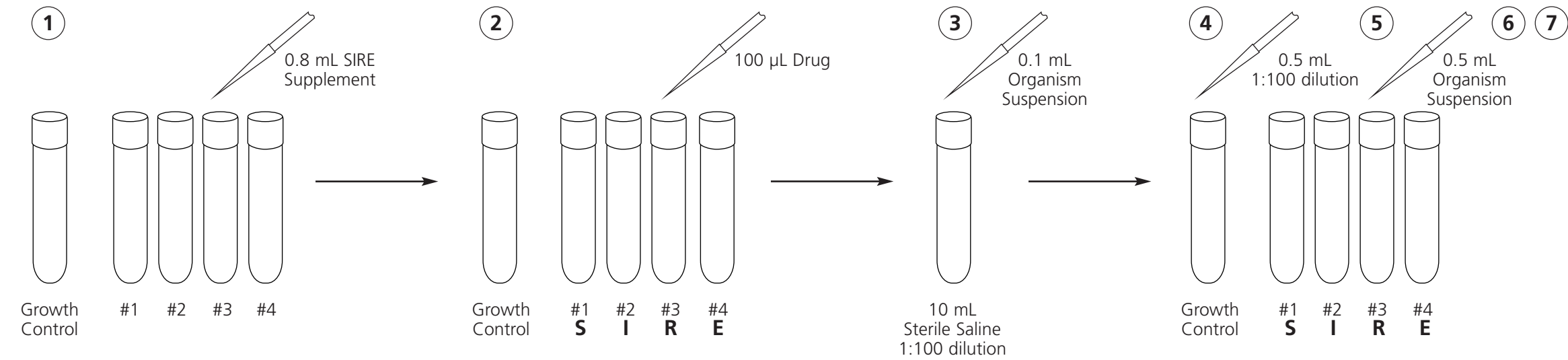


From Solid Media:



1. Use growth on solid medium ≤ 14 days old.
2. Make suspension >1.0 McFarland turbidity standard in MGIT broth containing 8-10 glass beads.
3. Vortex 2-3 minutes.
4. Allow to sit 20 minutes for large clumps to settle.
5. Transfer supernatant fluid to another sterile tube and allow to sit for another 15 minutes.
6. Transfer supernatant fluid to another sterile tube and adjust turbidity to 0.5 McFarland turbidity standard.
7. Dilute 1 mL of final suspension in 4 mL sterile saline. Mix.

MGIT 960 SIRE Inoculation:



1. Add 0.8 mL BACTEC MGIT 960 SIRE Supplement to each tube.
2. Add 100 µL of each drug to the appropriately labeled MGIT tubes.
3. Prepare Growth Control inoculum: Pipette 0.1 mL of organism suspension into 10 mL sterile saline to make a 1:100 dilution. Mix.
4. Inoculate the Growth Control tube with 0.5 mL of 1:100 dilution. Mix.
5. Inoculate each drug containing tube with 0.5 mL of organism suspension (undiluted). Mix.
6. Ensure inoculated tubes are thoroughly mixed.
7. Place tubes into appropriate AST set carrier and enter into BACTEC MGIT 960 instrument.



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Labor-saving.

Time-saving.

Easy to use.



Indispensable to
human health

BD BBLTM MycoPrepTM

Mycobacterial Specimen Digestion/Decontamination Kit

For Convenient and Cost-Efficient Processing of Mycobacterial Specimens

BD BBL™ MycoPrep™ Specimen Digestion/Decontamination Kit eliminates much of the time and labor traditionally associated with reagent preparation. A simple snap and a gentle shake give you a NALC-NaOH reagent that's stable up to 24 hours. You save valuable technologist time while avoiding the difficulties associated with reconstituting, weighing and mixing materials and inventorying separate ingredients!

Pre-packaged BD BBL MycoPrep reagent utilizes the recommended formulation for mycobacterial specimen processing to give you gentle, effective digestion/decontamination.¹ And since the all-inclusive product stores at room temperature and includes powdered phosphate buffer in pre-measured packages, your lab saves materials, time and labor while decreasing safety hazards.

Order the new BD BBL MycoPrep kit from your BD Diagnostic Systems distributor. The newest member of the most complete line of mycobacteria detection products.



Squeeze bottle to snap the NALC ampule.



Mix by gently shaking.



Pour into specimen tube as needed.

Maximum Time and Labor Savings When Compared with Other Reagent Preparation Protocols.

| BD BBL™ MycoPrep™ Kit ² | Typical TB Base Digestant and NAC-50 System ³ | Manual NALC-NaOH Method |
|---|---|---|
| <ol style="list-style-type: none"> 1. Squeeze bottle to snap the NALC ampule. 2. Mix by gentle shaking. 3. Use as needed for up to 24 hours. | <ol style="list-style-type: none"> 1. Allow NAC-50 vial to come to room temperature. 2. Transfer 5 mL of TB Base Digestant to NAC-50 vial. 3. Swirl to dissolve. 4. Add contents of NAC-50 vial to remaining 45 ml of TB Base Digestant. 5. Mix. 6. Use as needed for up to 24 hours. | <ol style="list-style-type: none"> 1. Weigh 29 g of sodium citrate. 2. Add to 1 liter water. This is solution A. 3. Weigh 40 g of NaOH pellets. 4. Rapidly add to water, keeping water cool, to 1 liter. This is solution B. 5. Combine equal volumes of solutions A and B. 6. Sterilize (121°C for 15 min). This is NaOH-sodium citrate solution. 7. Divide and store in appropriate working volumes. 8. JUST BEFORE USE, weigh NALC to desired amount. 9. Add NALC to NaOH-sodium working volume. 10. Mix. 11. Use as needed for up to 24 hours. |



¹ Kent and Kubica. 1985. Public health mycobacteriology: a guide for the level III laboratory. USD-HHS. Centers for Disease Control, Atlanta. Also Roberts et al. 1991. Mycobacterium, p. 304-339. In Balows et al. (ed.), Manual of clinical microbiology, 5th ed. Am. Soc. Microbiol., Wash., D.C. Also Isenberg, H.D. (ed.). 1992. Clinical microbiology procedures handbook, vol. 1. Am. Soc. Microbiol., Wash., D.C.

² See package insert for procedural details.

³ NAC-50 is a product of Remel.

| Product | Unit | Catalog No. |
|---|--|-------------|
| BBL™ MycoPrep™ Specimen Digestion/Decontamination Kit | 10 75-mL bottles of NALC-NaOH Solution and 5 packages of Phosphate Buffer (pH 6.8) | 240862 |
| | 10 150-mL bottles of NALC-NaOH Solution and 10 packages of Phosphate Buffer (pH 6.8) | 240863 |



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