

# STANTON TERRITORIAL HEALTH AUTHORITY

## Yellowknife, Northwest Territories

TITLE: AFB PANTA	Revision Date:	Issue Date:
	07-April-2017	07-April-2015
Document Number: MIC80900	Status: Approved	
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Approved by:	Signed by:	
Gloria Badari, Director, Corporate Services	(Original Signed Copy in	
and Chief Financial Officer	Microbiology)	

## PURPOSE:

To standardize the preparation of PANTA for MGIT liquid culture.

## **INTRODUCTION:**

The MGIT (Mycobacteria Growth Indicator Tube) is one of the most commonly used liquid media for the culture of mycobacteria. MGIT contains 4 ml of modified Middlebrook 7H9 Broth Base and pairs with an aliquot of lyophilized PANTA antibiotic mixture.

MGIT contains the liquid base and fluorescent indictor required for Mycobacteria growth detection. Length of incubation on the analyzer is 49 days (7 weeks).

PANTA is a growth supplement for the MGIT. In its reconstituted state, it consists of antibiotics and growth factors beneficial to Mycobacteria. Its purpose is to suppress the growth of contaminating bacteria with antibiotics, neutralize anti-tubercle antibiotics, and provide nutrition for Mycobacteria growth.

### MGIT AND SUPPLEMENT KIT:

Each Supplement Kit box contains 6 vials of liquid OADC and 6 vials of yellow antibiotic powder. Once reconstituted, the PANTA supplement is stable for up to 5 days.

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#### **PRODUCT INFORMATION:**

Product	Information	
Details:		
MGIT (Mycobacteria Growth Indicator Tube)	<ul> <li>Ordering information: <ul> <li>Supplier: Becton Dickinson</li> </ul> </li> <li>Contents: <ul> <li>7 ml of Modified Middlebrook 7H9 broth</li> <li>Fluorescent indicator (in silicone floor of tube)</li> <li>Dissolved oxygen (quenches fluorescence).</li> </ul> </li> <li>Storage: <ul> <li>Keep unopened &amp; opened box stored in the dark (lid closed) at Room Temperature. Light causes degradation of the fluorescent compound inside.</li> </ul> </li> </ul>	
MGIT Supplement Kit (OADC & PANTA)	<ul> <li>Supplement Kit info:</li> <li>Supplier: Becton Dickinson</li> <li>Storage:</li> <li>Media fridge at 2- 8° Celsius, away from light.</li> </ul>	
MGIT OADC (liquid growth supplement)	<ul> <li>Contents per vial: <ul> <li>15 mL volume</li> <li>Bovine albumin, Catalase , Dextrose, Oleic acid, Polyoxyethylene stearate – an emulsifier (POES)</li> </ul> </li> <li>Storage: <ul> <li>In Supplement Kit box, kept in media fridge at 2- 8° Celsius in media fridge, away from light.</li> </ul> </li> </ul>	
MGIT PANTA (lyophilized antimicrobial agents)	<ul> <li>Contents per vial: <ul> <li>Lyophilized mixture of Polymyxin B, Trimethoprim, Amphotericin B, Azlocillin, and Nalidixic acid</li> </ul> </li> <li>Storage: <ul> <li>In Supplement Kit box, kept in media fridge at 2- 8° Celsius, away from light. Reconstitution:</li> </ul> </li> <li>Stability after reconstitution: <ul> <li>5 days. Write expiration date on bottle with initials.</li> </ul> </li> <li>Storage after reconstitution <ul> <li>Reagent fridge, middle shelf, beside TC &amp; Streptex</li> </ul> </li> </ul>	

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Prepared MGIT = 800 μL (0.8 mL) of lyophilized PANTA into MGIT

### **PREPARATION OF PANTA:**

Step	Action			
Mater	ials:			
•	18 gauge 1½ inch needle • Sharpie marker			
•	10 mL syringe • Supplement Kit & MGIT			
Prepa	Preparation of:			
1	Obtain one pair of vials from Supplement Kit in media fridge.			
	Remove metal tops. Discard in sharps container.			
2	Remove rubber caps on both vials			
	Keep PANTA rubber cap for later. Discard rubber cap from Growth Supplement vial.			
3	Clear airlock in syringe by moving plunger up and down several times.			
J	Attach the needle to the 10 mL syringe by screwing them together.			
	Dispense liquid in two steps by measuring out two volumes into the yellow powder vial.			
	(ie. one aliquot of 8mL, 2 <sup>nd</sup> aliquot of 7 mL)			
4	Total volume of growth supplement aliquots into PANTA vial should equal 15 mL			
	Note: Several mL's of growth supplement will remain in the tinted vial. This is normal			
	(manufacturer supplies more liquid than required).			
5	Discard tinted glass vial, needle, and syringe in Sharps container.			
6	Replace rubber cap on PANTA vial and mix by inverting several times. PANTA			
0	rehydrates quickly. Reconstituted PANTA will be a translucent pale yellow/straw colour.			
7	Using a Sharpie, write the date of expiry and initials on PANTA vial.			
8	PANTA is ready for use. Aliquot 800 µL of PANTA per one MGIT. Return excess PANTA to the reagent fridge when done.			
Note: For best results, MGITs should be spiked with PANTA just <u>before</u> specimen				
inoculation (ie. Spike MGITs when samples are centrifuging).				

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#### **REFERENCES:**

• BBL<sup>™</sup> MGIT<sup>™</sup> product insert: Mycobacteria Growth Indicator Tube 7 mL with BACTEC<sup>™</sup> MGIT <sup>™</sup> 960 Supplement Kit.

#### **REVISION HISTORY:**

REVISION	DATE	Description of Change	REQUESTED BY
1.0	19-DEC-2014	Initial Release	L. Driedger
	03Feb2015	Review	S.Webber

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