

**KCMC Biotechnology
Laboratory, Microbiology**

**STANDARD
OPERATING
PROCEDURE**

Effective Date
15 May 2008

SOP-Number
MIC.030.02

Page 1 of 5

Date
15 May 2008

Title: MEDIA QUALITY CONTROL

Author/Date: Anne Morrissey, 16 May 2006

Approvals/Date:

John A. Crump, MB, ChB, Microbiology Laboratory Director

Anne Morrissey, MS, MT(ASCP)SM, Microbiology Lab Supervisor

This SOP has been read and understood by:

Name	Date
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Annual Review	
By	Date

Title: MEDIA QUALITY CONTROL

Document History:

Version Number	Reason for Changes	Date
MIC.030.01	Addition of expired media QA	25 March 07
MIC.031.02	Removal of expired media QA	15 May 08

Copies distributed to:

Name	Date

Title: MEDIA QUALITY CONTROL

PURPOSE

To assure the quality of prepared media and maintain its ability to support the growth of bacteria for which it is intended.

NEW MEDIA SHIPMENTS

1. Enter the following information on the MEDIA LOG :

Date Received
Medium name
Amount of each received
Lot Numbers
Expiration Date

2. Label boxes with the Received Date.

QUALITY ASSESSMENT

1. **Appearance/Visual Inspection:**

- a. Remove 1 plate/tube/ bottle for every 10-20 in the shipment.
- b. Check for quality and appearance by examining selected sleeves/bottles/tubes of media for the following:
 - Cracked/damaged plates
 - Agar detached from plate edges
 - Frozen or melted agar
 - Unequal filling
 - Insufficient agar in plates (<3 mm)
 - Hemolysis of blood agar
 - Color change (possible pH problem)
 - Minimal moisture in packages
 - Smooth surface
 - No visible contamination or turbidity in broth media
 - Change in color of detection disk in BacT/ALERT bottles
 - No precipitates
- c. Document appearance check on MEDIA LOG.
- d. If any appear unsatisfactory examine the entire shipment and discard unacceptable plates.
- e. Complete a QC DEVIATION FORM if appearance is unacceptable.
- f. Arrange for replacement of unacceptable media.

Title: MEDIA QUALITY CONTROL**2. Sterility Check**

- a. Incubate the media removed for the appearance check at 35° C for 48 hours.
- b. Document acceptable sterility on MEDIA LOG.
- c. If any are contaminated, incubate the entire shipment.
- d. Complete a QC DEVIATION FORM if any are not sterile.
- e. Discard all contaminated media.
- f. Arrange for replacement of contaminated media.

3. Acceptable Results:**Table 1. Appearance**

Medium	Appearance
Blood Agar	Bright red, shiny surface, no dessication
Chocolate Agar	Brown, shiny surface, no dessication
MacConkey Agar	Light/medium pink, shiny surface, no dessication
Sabouraud Dextrose Agar	Clear, light yellow, shiny surface, no dessication
Middlebrook 7H10 Agar	Clear, slightly opaque, shiny surface, no dessication.
Lowenstein Jensen	Light green, shiny surface, no dessication
Mueller Hinton Agar	Clear, light yellow, shiny surface, no dessication
Mueller Hinton Blood Agar	Bright red, shiny surface, no dessication
Haemophilus Test Medium	Clear, light yellow, shiny surface, no dessication

Table 2. pH

Medium	pH
Blood Agar	7.1 – 7.5
Chocolate Agar	7.1 – 7.5
MacConkey Agar	6.9 – 7.3
Middlebrook 7H10 Agar	7.1 – 7.5
Sabouraud Dextrose Agar	5.4 – 5.8
Mueller Hinton Agar	7.1-7.5
Mueller Hinton Blood Agar	7.1-7.5
Haemophilus Test Medium	7.2-7.5

Title: MEDIA QUALITY CONTROL

PERFORMANCE TESTING

1. Mueller Hinton and Mueller Hinton Blood agars and Haemophilus Test Medium must be checked for ph and agar depth.
2. Documentation of acceptable Quality Control provided by the manufacturer must be retained for the following media:
 - Blood Agar
 - Chocolate Agar
 - MacConkey Agar
 - Sabouraud Dextrose Agar
 - Middlebrook Agar
 - Lowenstein Jensen Medium
 - Mueller Hinton Agar
 - Mueller Hinton Blood Agar
 - Haemophilus Test Medium
 - Middlebrook Agar
 - BacT/ALERT SA, PF, MB, MP media

REFERENCE

M22-A3, Quality Assurance for Commercially Prepared Microbiological Culture Media.
June 2004, NCCLS/CLIS, Wayne Pennsylvania.

APPENDIX A - Media Log Sheet

APPENDIX B - pH Susceptibility Test Media (3)