

**KCMC Biotechnology
Laboratory, Microbiology**

**STANDARD
OPERATING
PROCEDURE**

**Effective Date
June 2006**

**SOP-Number
MIC.017.02**

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**Date
June 2006**

Title: TEMPERATURE MONITORING MICROBIOLOGY LABORATORY

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This SOP has been read and understood by:

Name	Date
Signatures on original copy.	
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Annual Review	
By	Date

Title: TEMPERATURE MONITORING MICROBIOLOGY LABORATORY

Document History:

Version Number	Reason for Changes	Date
MIC.017.02	Minor verbiage changes and title change to include "For Microbiology". Addition of 2x/day monitoring	June 2006

Copies distributed to:

Name	Date

Title: TEMPERATURE MONITORING MICROBIOLOGY LABORATORY

PURPOSE

To assure proper conditions for storage of reagents, supplies, incubating cultures and performing tests.

SCOPE

Temperatures in temperature sensitive equipment as well as room temperature will be checked daily and documented. This SOP applies to all personnel in the Biotechnology laboratory monitoring temperatures in the Microbiology Laboratory.

EQUIPMENT MONITORED

BacT/ALERT Modules 1 & 2
Freezer (-85° C)
Incubator, CO2
Incubator, Aerobic
Refrigerator
Freezer (-20° C)
Room Temperature

THERMOMETERS

A calibrated thermometer i.e. one that has been verified using National Institute of Science and Technology Certified Thermometer that bears a unique identification number will be placed in all temperature sensitive equipment and in room.

FREQUENCY OF TEMPERATURE RECORDING

Twice daily: Once prior to commencing work and again before leaving for the day.

QC TEMPERATURE RECORD FORMS (TEMP RECORDS: JAN to MAR, APR to JUN, JULto SEP, OCT to DEC))

The following information is included on the form:

Equipment Name/Manufacturer
Equipment location
Model number
Serial number
Acceptable temperature range
Year
Actual Temperature reading
Technician initials

Title: TEMPERATURE MONITORING MICROBIOLOGY LABORATORY**RECORDING TEMPERATURES**

1. Enter temperature in the box corresponding to the month, day and date.
2. Enter technician initials next to the temperature record.
3. Compare temperature with acceptable range. If not within the range, complete QC DEVIATION FORM.
4. Initiate appropriate corrective action and document on above form.
5. Submit for supervisor review.

ACCEPTABLE RESULTS

EQUIPMENT	ACCEPTABLE RANGE
BacT/ALERT BC Module 1	34-36 ° C
BacT/ALERT MB Module 2	36-38 ° C
Freezer (Ultracold)	-80 to - 90 ° C
Incubators	34 – 36° C
Refrigerator	2-8 ° C
Freezer above refrigerator	-15 to - 25 ° C
Room Temperature	18-25 ° C

CORRECTIVE ACTIONS

EQUIPMENT	STEP 1	STEP 2	Step 3 (if necessary)
BacT/ALERT – Temp too low	Cause may be prolonged opening of drawer. Allow one hour to equilibrate and recheck.	Contact biomerieux (Hass Scientific) for technical assistance.	
BacT/ALERT-temp too high	Contact biomerieux (Hass Scientific) for technical assistance		
Freezer (-80° C)	If temperature is above -60° C remove contents to another freezer. Examine interior to assess need for defrosting.	Defrost freezer if necessary. Adjust temperature control and monitor every hour until within range. Record these temperatures on the QC deviation form.	Contact technical service.

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Incubators	If temperature exceeds the highest acceptable temperature, move contents to another incubator or place at room temperature while making adjustments. If temperature is below acceptable range, move contents to another incubator if possible; if not they may remain for a few hours until acceptable temperature is attained.	Manually adjust temperature control and monitor temperature every hour until within range. Record these temperatures on QC Deviation Form	Move contents to another incubator and contact technical service for repair.
Refrigerator	Move contents to another refrigerator.	Manually adjust temperature control and monitor temperature every hour until within range.	Contact KCMC service.
Freezer (-20° C)	If temperature goes above -5° C move contents to another freezer.	Manually adjust temperature control and monitor temperature every hour until within range.	Contact KCMC service.
Room Temperature	Adjust AC, open lab doors to circulate air. DO NOT open windows.	Contact KCMC for service to air conditioner.	

REFERENCES

Operator Manual BacT/ALERT™ 3D, Version B.12, bioMerieux, Inc. Durham, NC.

APPENDIX A – Temperature Record Forms (Jan-Jun, Jul-Dec)

APPENDIX B - QC Deviation Form