Frederick National Laboratory for Cancer Research, Frederick, MD

BPP

Biopharmaceutical Development Program

Standard Operating Procedure

Title: Sterility Hold

SOP Number: 23000

Revision Number: 05

Supersedes: Revision 04

Effective Date: APR 12 2019

Originator/Date: [redacted]

Approval/Date:

Approval/Date:

Table of Contents

1.0 Purpose

This procedure is used to determine if a submitted sample is sterile, by holding the sample under appropriate incubation conditions for 14 days.

2.0 Scope

This SOP will be used by Process Analytics/Quality Control (PA\QC) personnel for performing this procedure.

3.0 Authority and Responsibility

3.1 The Director, Technical Operations, Process Analytics\Quality Control (PA\QC) has the authority to define this procedure.

This procedure is made available through federal funds from the National Cancer Institute, NIH. under contract [redacted]

3.2 PA\QC is responsible for training laboratory personnel and documenting this training to Biopharmaceutical Quality Assurance (BQA).

3.3 PA\QC personnel and designees are responsible for the performance of this procedure.

3.4 PA\QC and designees are responsible for reviewing the data and documentation of the results of this procedure.

3.5 BQA is responsible for quality oversight of this procedure.

4.0 Materials and Equipment

4.1 Incubator, 30 to 35°C.

4.2 Incubator, 20 to 25°C.

4.3 Laminar Flow Hood.

4.4 TSA Plates (BDP PN 10006).

5.0 Procedure

5.1 Samples will be incubated at 30 - 35°C unless they contain TSB. Containers of TSB will be incubated at two temperatures (20 to 25°C and 30 to 35°C) for seven days each. Place the sterility hold sample in an incubator set to an appropriate temperature.

5.2 Incubation will consist of 14 days. Within those 14 days, the sample needs to be visually examined on day 3, 4, or 5 and then again on day 7 or 8. The final visual examination of the sample will be day 14.

5.2.1 TSB will be placed in the 20 to 25°C incubator for 7-8 days and then transferred to the 30 to 35°C incubator for the remainder of the 14 days.

5.2.2 TSB submitted in vials/cryovials or other final product containers as part of a validation will be placed in the 20 to 25°C incubator in an inverted position to allow the media to contact the stopper/cap/closure system if liquid does not inherently contact that portion of the container. On day 3, 4, or 5 they will be checked as directed in Step 5.3 and placed back into the incubator in the normal upright orientation. They will remain upright for the rest of the testing duration. The turning from inverted to upright should be noted in the comments section of the form or as otherwise directed per the validation protocol.

5.3 On each day of examining the sample, check for turbidity and/or pellet formation. If the sample appears clear, record data as **clear, no pellet or precipitate (ppt)**. If the sample appears cloudy, record data as **cloudy, with or without pellet or precipitate**.

NOTE: On the first examination of the sample, if it appears to be cloudy with precipitate and or pellet, notify the requestor and the PA/QC Supervisor immediately.

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5.4 If the sample is cloudy with precipitate and or pellet, aseptically inoculate duplicate TSA plates with 1 mL of sample in a laminar flow hood. Place the TSA plates and a control TSA plate at the temperature in which the turbidity was discovered. Continue sterility hold of sample until day 14. At 24 hours, check the plates to see if any organisms are recovered. If organisms are recovered, notify the requestor and the PA\QC Supervisor immediately.

5.5 Perform a Gram Stain per ***SOP 22137 - Preparation of a Gram Stain: Manual Method*** and submit recovered organism(s) for speciation.

6.0 Documentation

6.1 Document all work in the appropriate lab notebooks and on the Sterility Hold worksheet, **Form 23000-01**. Document when material changes incubation temperature or is flipped on the form.

6.2 **Form 23000-01** is reviewed by PA\QC. **Form 23000-01** is attached to the QC Test Request form and submitted for final review and approval.

6.3 Raw data is archived with the QC Test Request in BQA as per ***SOP 21407 - Records Retention.***

7.0 References and Related Documents

7.1 **SOP 21407** *Records Retention*

7.2 **SOP 22137** *Preparation of a Gram Stain: Manual Method*

8.0 Attachments

8.1 **Attachment 1** Form 23000-01, Sterility Hold Worksheet

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Attachment 1

Form 23000-01, Sterility Hold Worksheet

FNLCR, BDP
Form No.: 23000-01
SOP No.: 23000
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Sterility Hold Worksheet

Date on Test: _____

Incubation Temperature: ☐ 20 - 25°C, BDP # _____ Cal. Due Date: _____
☐ 30 - 35°C, BDP # _____ Cal. Due Date: _____

	Day 3, 4 or 5 (circle day)	Day 7 or 8 (circle day)	Day 14
	Date:	Date:	Date:
Sample Name / Lot #	Observations/Comments		
Performed By Initials/Date			

Comments: _____

_____

_____

_____

PA\QC Review/Date: _____

QCTR#: _____

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Initials/Date: _____

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