

CMR STANDARD OPERATING PROCEDURE

TITLE: AUTOCLAVE VERIFICATION

SOP Category: Facilities CMR SOP #: 2.01 Page: 1 of 2

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SCOPE:

This document covers the procedures used by the staff of Rutgers University Comparative Medicine Resources (CMR) to determine the correct functioning of autoclaves used in all animal facilities using biological indicator ampoules.

OBJECTIVE:

These procedures ensure that items being autoclaved are sterile.

PROCEDURES:

Storage

On receipt, store ampoules as directed in the manufacturer's instructions.
Freezing and overheating must be avoided.

Qualitative Cycle Monitoring

 Before using ensure ampoule is PURPLE. Signs of color change or clouding of contents indicate a deterioration of product.

- Place an unopened ampoule in the autoclave. Place the ampule in the load, in a location known or suspected to be the most resistant to sterilization. If using more than one ampoule place in different locations.
- Before running the autoclave ensure that autoclave tape and/or autoclave test strip is present for the autoclave load.
- After autoclaving, remove ampoules for incubation. If the autoclave tape and/or temperature indicator strip has not changed (usually black lines or letters) your autoclaving has failed, and the load needs to be reprocessed.



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- Each autoclave should be tested at least monthly using the biological indicator system. Other loads during the week should be monitored using standard autoclave tape and/or temperature indicator test strips. Autoclave tape/indicators will change if conditions for autoclaving have been met.
- Some facilities (Gnotobiotic and RBL) require weekly validation.

Ampoule Results

Examine ampoules to be incubated to check for any color change present before incubation. Check unused/control ampoules for signs of color change or

clouding of contents the same as checking before placing in autoclave load. This indicates a

deterioration of product.

- Incubate a non-autoclaved ampoule along with the autoclaved ampoules (make sure to mark the samples so you know which is which) to serve as a positive control and observe for growth and acid production (indicated by a color change of the medium from purple to yellow).
- Examine the incubated ampoules after 48 hours of incubation for the appearance of turbidity (growth) and a yellow color, indicating failure of the sterilization process.
- Ampoules remaining purple indicate that sterilization has been accomplished, provided that the control shows growth (yellow, cloudy).

Sample

Control

Log results on sheet posted on autoclave.

