



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Serology)		
Document:	Internal Policy and Procedure		
Title:	Bio-Rad EVOLIS Machine		
Applies To:	All Laboratory Staff		
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1. PURPOSE:

- 1.1 To describe the procedure of using Bio-Rad EVOLIS machine for ELISA tests.

2. DEFINITONS:

- 2.1 The EVOLIS Premium System is a self-contained microplate processor for automated, microplate-based EIA testing.

3. POLICY:

- 3.1 The EVOLIS Premium System is a self-contained microplate processor for automated, microplate-based EIA testing. Offering a high degree of analytical performance, the system is dedicated to smooth and safe handling of materials encountered in busy environments.

4. PROCEDURE:

4.1 Maintenance:

4.1.1 Daily Maintenance:

- 4.1.1.1 Check the system liquid tank level.
- 4.1.1.2 Empty and clean the waste tips container.
- 4.1.1.3 Check the waste tank liquid level, empty and clean if necessary.
- 4.1.1.4 Check the level and fill the clean fluid bottle.
- 4.1.1.5 Switch on the instrument FIRST then the computer.
- 4.1.1.6 Start EVOLIS software only when the "ready" led on the Instrument is "ON".
- 4.1.1.7 Perform the self- test: the self-test starts and the daily maintenance will be executed. Automatically, in the self-test procedure (follow the instructions). to run the daily maintenance procedure between two different works without switch off the system, is necessary to perform the self -test procedure clicking on the utilities menu.
- 4.1.1.8 Check if self-test is passed.
- 4.1.1.9 Clean the instrument surface if necessary.

4.1.2 End of work:

- 4.1.2.1 Close the finished work list.
- 4.1.2.2 Close the EVOLIS software.
- 4.1.2.3 Close Windows and switch off the computer.
- 4.1.2.4 Remove the Reagent Bottles and the sample racks.

4.1.3 Weekly maintenance:

- 4.1.3.1 Automatically executed after 7 days, in addition to the Daily and according to the Self-Test.
- 4.1.3.2 Start EVOLIS program.
- 4.1.3.3 Perform the Self-Test.
- 4.1.3.4 Clean the following areas:
 - 4.1.3.4.1 Microplate area.
 - 4.1.3.4.2 Reagent and patient Rack area.

- 4.1.3.4.3 Pipetting area.
- 4.1.3.4.4 Pipettor Wash station.
- 4.1.3.4.5 Tip eject station.
- 4.1.3.4.6 Decontaminate the instrument surface.
- 4.1.3.5 Change the System Liquid Fluid.
- 4.1.3.6 Clean and disinfect Waste Container.
- 4.1.3.7 Run weekly washer maintenance assay.
- 4.1.3.8 Perform end-of-day maintenance and shutdown the system.
- 4.1.4 Monthly maintenance:
 - 4.1.4.1 Backup system files.
 - 4.1.4.2 Clean reagent and patient racks.
 - 4.1.4.3 Clean all four washer buffer bottles with distillate water.
 - 4.1.4.4 Clean the "system liquid" tank with distillate water.
 - 4.1.4.5 Clean and disinfect the external "waste" tank.
- 4.2 **System start:**
 - 4.2.1 Start EVOLIS instrument.
 - 4.2.2 Start the computer.
 - 4.2.3 Start the EVOLIS software by clicking on the respective icon on the desktop or choosing Start/EVOLIS.
 - 4.2.4 Click on the OK button.
 - 4.2.5 System self- test is performed and checks all instrument functions. Result will be displayed on the screen.
- 4.3 **Input of patient data:**
 - 4.3.1 Insert samples into the EVOLIS with the worklist closed.
 - 4.3.2 Enter sample ID & patient ID manually.
 - 4.3.3 Select the respective assay by clicking on the column header.
 - 4.3.4 Assign the samples by clicking on the field in the respective assay column. Check mark will appear on the sample ID based on the selected assay. You can select more than 1 assay for each sample.
- 4.4 **Create worklist:**
 - 4.4.1 Click the New/Work list.
 - 4.4.2 The Set-up Panel dialogue box is displayed.
 - 4.4.3 Click on OK to accept the proposal.
 - 4.4.4 Work list window will appear. Go to Reagent Requirements. Print.
 - 4.4.5 Prepare the reagents.
- 4.5 **Load controls, reagents, plates, & other required resources:**
 - 4.5.1 Place controls and prepared reagents in the rack and insert into the right track on the EVOLIS.
 - 4.5.2 An inserted rack is depicted graphically.
 - 4.5.3 Allocate the required resources by dragging & dropping the circles in different colors to the corresponding circles on the inserted rack as you previously arranged. You can view the respective name of these circles in different colors by moving the cursor over them.
 - 4.5.4 Load disposable tips, dilution tubes, wash buffer, and distilled water as shown on the screen. Only complete tip racks should be loaded.
 - 4.5.5 Place controls and prepared reagents in the rack and insert into the right track on the EVOLIS.
 - 4.5.6 Open the plate compartment door and place test plate. Position A1 on the rear left.
 - 4.5.7 Enter the plate name and date in the Plate ID. Click OK.
 - 4.5.8 Repeat procedure until all plates of the worklist have been inserted.
 - 4.5.9 The system starts the run automatically.
 - 4.5.10 Wait for the entire run to end. Unload plates one by one to view results.
- 4.6 **Special precautions:**
 - 4.6.1 Where a disinfecting is required, use always a non-alcoholic type.
 - 4.6.2 Do not use any disinfectants containing alcohol for Plexiglas surfaces and for the manifold (e.g. cover hood).
 - 4.6.3 Disinfectants must not come into contact with bearings and guides, as otherwise the greasy film may dissolve.
 - 4.6.4 Disinfectants must not be used in the vicinity of circuit boards and light barriers.

5. MATERIAL AND EQUIPMENT:

5.1 Bio-Rad EVOLIS machine

6. RESPONSIBILITIES:

6.1 All Serology lab trained staff

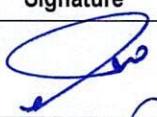
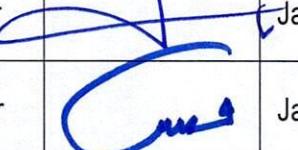
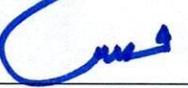
7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 Bio-Rad EVOLIS machine manual

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Fatma Hassan Ahmed	Clinical Pathologist		January 06, 2025
Reviewed by:	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 08, 2025
Reviewed by:	Ms. Noora Melfi Alanizi	Laboratory & Blood Bank Director		January 09, 2025
Reviewed by:	Mr. Abdulelah Ayed Al Mutairi	QM&PS Director		January 12, 2025
Reviewed by:	Dr. Tamer Mohamed Naguib	Medical Director		January 14, 2025
Approved by:	Mr. Fahad Hazam Alshammari	Hospital Director		January 20, 2025