

## Standard operating procedure of ELISA reader

1. Objective: This instruction describes the use, maintenance, and calibration of the ELISA reader.

2. Function range: ELISA Reader is a specialized spectrophotometer designed to read ELISA test results. This device is used to determine the presence of specific antibodies or antigens in the samples. This technique is based on detecting an antigen or antibodies on a solid surface directly or secondarily with the help of labeled antibodies and creating products that can be read by a spectrophotometer.

3. Responsibility: The laboratory expert is responsible for the correct operation of the device and in case of any problems should be reported to him.

4. Method of work:

1. First, use the main key to turn on the ELISA reader.

2. Run the software (Magellan) related to the device through the computer to open the place of placing the plate (cassette) on the device.

3. Insert the plate according to the number A1 for the first valve correctly and without the door inside the device.

4. Now, using the Move plate in option, guide the cassette of the device inwards so that the plate is inside the device.

5. Select the RUN option to enter the Wizard section. In this section, click Continue to enter the next section.

6. In this section, you must select the method of collecting information by the device, by default this section is set to the obtain raw data option.

7. Select the MAKE YOUR SELECTION option to enter the Measurement type section. In this section, by selecting the appropriate measurement method by the device according to the sample tested, you can select one of the two options Endpoint measurement or Kinetic measurement.

8. Select the SHOW SUMMARY option to enter the Measurement parameter section. In this section, you can select the appropriate wavelength according to the type of sample as well as the settings related to the styling of the tested sample.

9. In the next step, press the START option to read. Finally, the results are displayed in EXCEL software format for you to save.

10. Then remove the plate from the device and turn off the device using the main key.

5. Maintenance and care: The surface on which this equipment is placed must be perfectly smooth, any vibration - possible harm to the device.

The place where it is kept should be free of airborne agents, including dust particles and vapor particles, especially acid vapors.

While reading, make sure that the lid is closed so that no extra light interferes with its light absorption.

The outer surface as well as the inner surfaces of the wells should be free of any dust particles and contamination.

The volume of solution inside the wells should not be less than 200 microliters.

When pouring the solution into the plates, the solutions may stick to the walls of the wells due to the effect of molecular adhesion, which is removed by mixing the solution before reading.

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<b>Full file name</b>	Standard operating procedure of ELISA reader
<b>Document description</b>	These instructions describe the usage, maintenance and calibration of ELISA reader which is kept in Core laboratory.
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