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INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

College of Medicine

SAFETY AND LABORATORY COOMMITTEE, C.O.M, K.F.U.

Prepared by

Document Number	Name	Signature	Date
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Document History

Document Section	Details of Amendments	Date	Modified by (Initials)
SOP	First Draft on SOP for the operation of **Gel Doc XR+ Gel Documentation System** Gel Logic 112	29-11-2020	
	This instrument to be operated by trained personal only		

1. OBJECTIVE

- The document describes the operation of

Gel Doc XR+ Gel Documentation System

2. SCOPE

- The Gel Doc XR+ System is a fast, easy-to-use, completely automated gel imaging and documentation system controlled by Image Lab Image Capture and Analysis Software.

3. RESPONSIBILITIES

- It is the responsibility of designated personnel in the lab to train staff and students on this procedure and to ensure adherence to this procedure under supervision.
- It is the responsibility of designated personnel (staff or Student) to follow the instructions of this procedure under supervision.

4. REFERENCES

- https://timothyspringer.org/files/tas/files/biorad-geldoc.pdf

5. DEFINITIONS

- 1 CCD Camera and Lenses

A CCD Camera is placed on top of the Universal Hood II for capturing images.

The Camera comes with a Motorized Zoom Lens (MZL) that allows a remote adjustment of the lens control functions viz. zoom, focus and iris.

2. Darkroom Enclosure, Emission Filters, and Illumination Sources

The Universal Hood II is designed to capture fluorescence and chemiluminescence images without using a photographic darkroom.

The enclosure has built-in white light epi-illumination and a UV transillumination.

For easy sample loading, the UV transilluminator is located in the drawer of the Universal Hood II and can accessed from the front of the enclosure.

3. Connected with a computer system.

6. SAFETY PRECAUTIONS

- This instrument is suitable for research use only. It must be used, therefore, only by specialized personnel that know the health risks associated with UV radiation and with the reagents that are normally used with this instrument. Use of the acrylic screen does not guarantee protection of the user from UV radiation. The use of protective eyeglasses or mask and gloves is strongly recommended.

PROCEDURE FOR OPERATING: Gel Doc XR+ Gel Documentation System

7.

7.1. Turning on the instrument:

- A. Open the box and review the unpacking instructions.
- B. Carefully remove all of the components of your system.
- C. Remove the top foam and the plastic wrapping from the Universal Hood II.
- D. Carefully pull the enclosure out of the bottom foam and place it in a suitable location.

7.2. Software Operation.

Note: Please do not connect the power cable to a power source until all connections are made. The power source has to be grounded and protected by a circuit breaker.

7.3. Steps of the Procedure

1-Turn on the system

2- Wait for 30 minutes for Camera to warm up

3-Press the Epi-White key. Epi-White LED turns on

4-Open the door and put the gel in the center.

5-Press the Epi-White key again. Close the door.

6-Press the Trans UV key.

7- Press the Epi-Illumination button.

. Open the system in computer and Double click on Quantity One software icon on the desktop.

From "File Menu" select "Gel Doc XR" or "ChemiDoc XRS".

. Select Live/Focus.

. An image of the target will appear on the computer screen.

Using the lens control buttons on the membrane touch pad or the control panel that appears in the software, find the best Iris, Focus, and Zoom conditions then save .

. From the setting we can write the required information on the image and then

Save as an image.

7.4. Turning off the Instrument

a) Make sure that your computer is turned off.
b) Take out the gel and close the door.
c) Turn off the gel dox xr.

7.5. Warning

The operator should wear appropriate safety glasses or a protective mask and gloves in addition to using the UV Safety Shield provided with this instrument.