# **KwikQuant** Pro

# **User Manual**



#### 1. Product Content:

- 1) Imager
- 2) White tray (230mm x 150mm)
- 3) Black tray (230mm x 150mm)
- 4) USB cable (1 meter)
- 5) AC (100-240V)/DC (12V) adapter

#### 2. User provided components

- 1) Windows (10 or 11), 8GB RAM (min), 500GB HD (min)
- 2) Touch screen with stylus input preferred

#### 3. System set up

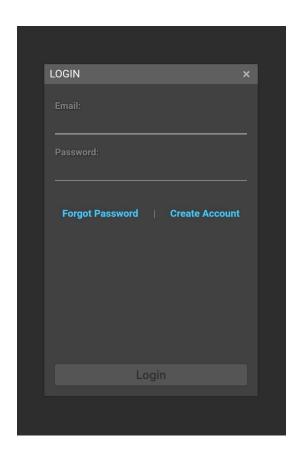
- Download and install the latest "KwikQuant Pro" app from www.kindlebio.com
- 2) Connect the computer and the imager via the USB cable
- 3) Plug in the power adaptor
- 4) Turn on the power switch
- 5) Place the sample on the sample tray.

The white tray is for Western blot, and white light-based imaging samples (such as a coomassie bright blue stained SDS PAGE gel); the black tray is for UV imaging such as a SafeRed Plus (cat.# R9002) (or GelRed) stained DNA/RNA agarose gel. Place the tray on the drawer, and slide the drawer in and close.

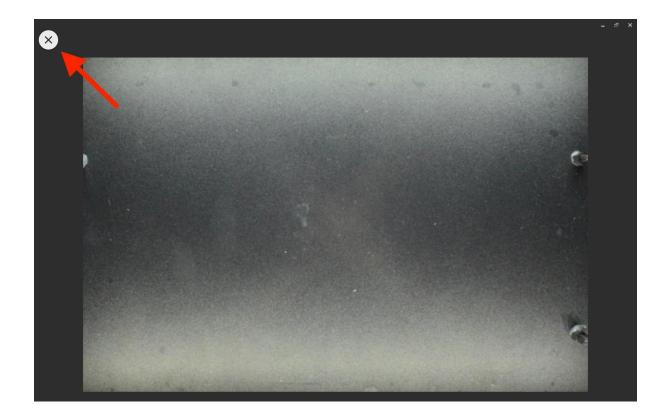
#### 4. Operation

### 1) Sign up a user account

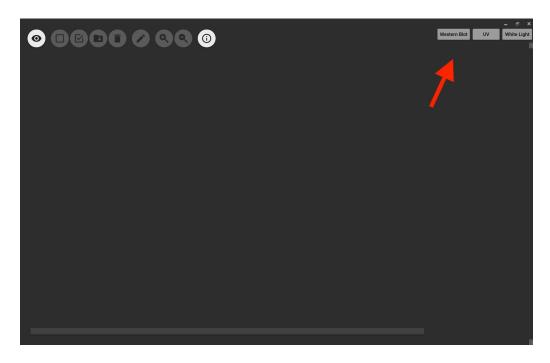
Launch KwikQuant Pro app: Users must log in their accounts to use the device. The device settings and experiment results are only accessible by the account holder. If a user doesn't have an account, follow the on-screen command to register one.



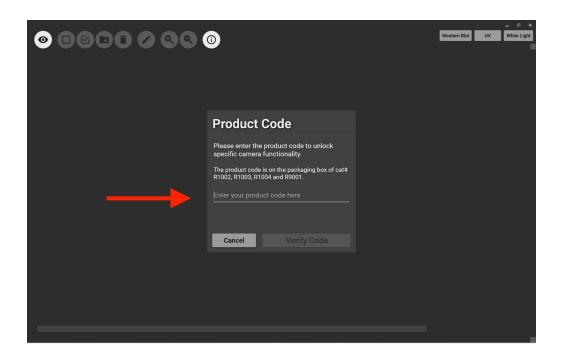
Once the user is signed in, he/she is able to see the sample on live view. The live view will close automatically after 5 seconds, or the user can turn off the live view mode manually.



## 2) Western blot imaging

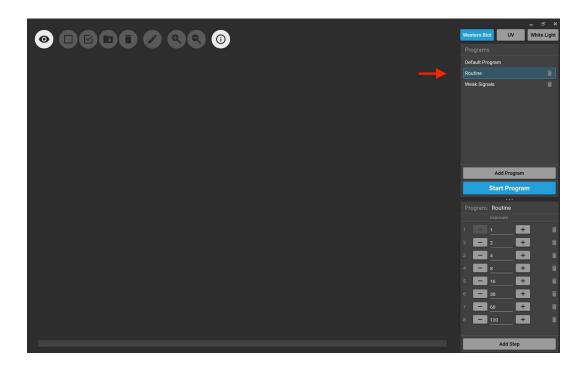


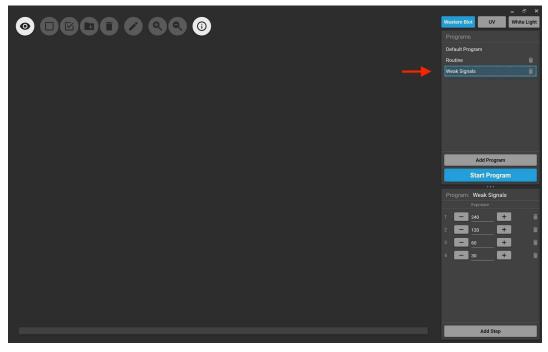
When the user clicks the "Western blot" button, the app enters WB imaging mode.



If the user has the reagent product code-locked app version (D1010SL), a product code must be entered here. If the user purchased an open version (D1010SU), the product code is not needed

Once the product code is entered, the app is ready for western blot imaging.

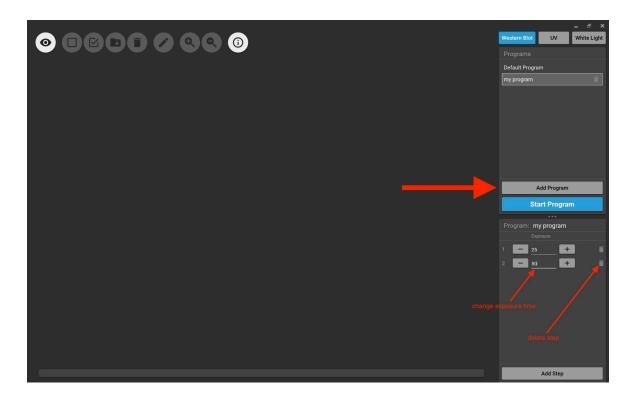




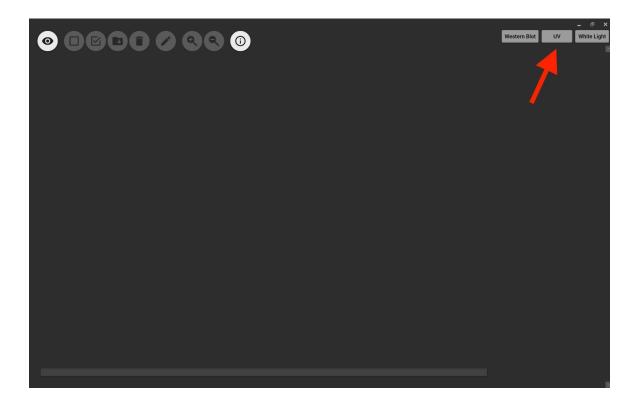
Western blot imaging has two programs. "Routine" program consists of a series of 8 exposures, from 1 second stepwise doubling to 2 minutes; "Weak signals" program consists of a series of 4 exposures, from 4 minutes stepwise halving to 30 seconds.

Users should develop the blots using 1:5 diluted ECL substrate solution (R1002 or R1003) first, and acquire images using the "Routine" program. The imager should be able to detect the majority of routine blots. If the desired bands don't show up, the user should treat the membrane again using the non-diluted ECL substrate solution, and subsequently using the "Weak signal" program to acquire images.

The user may also create a custom program by clicking the "Add program" tab, and then specify the desired exposure time and the number of steps.

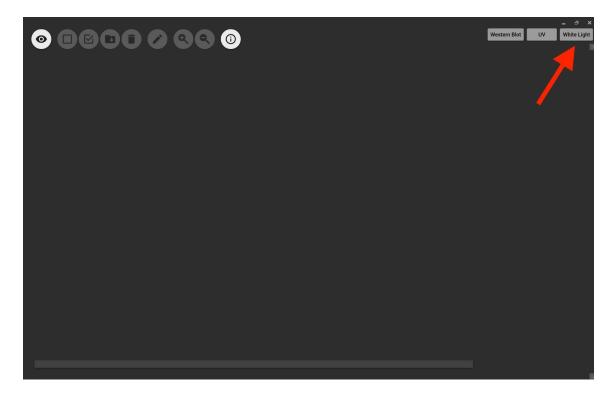


## 3) DNA/RNA agarose gel imaging



Click the "UV" button, the user can take images of SafeRed- (R9001) or SafeRed Plus- (R9002) stained DNA/RNA agarose gels. The procedure is very similar to that of the "Western Blot" mode.

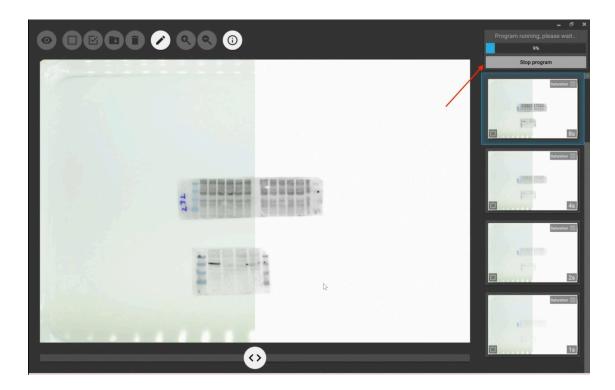
#### 4) White light imaging



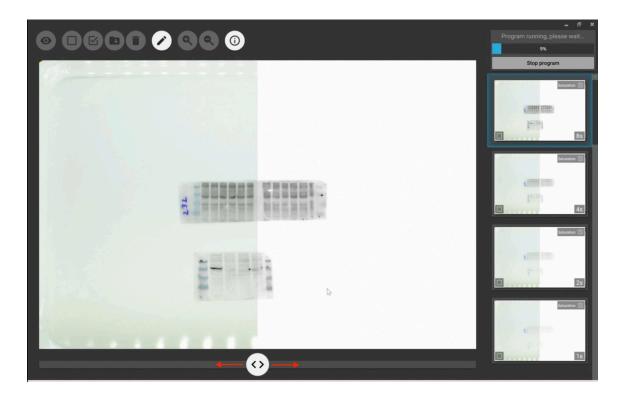
Click on the "White light" button, the the user can take images of such as coomassie blue stained SDS PAGE gels, ponceau stained western blot membranes.

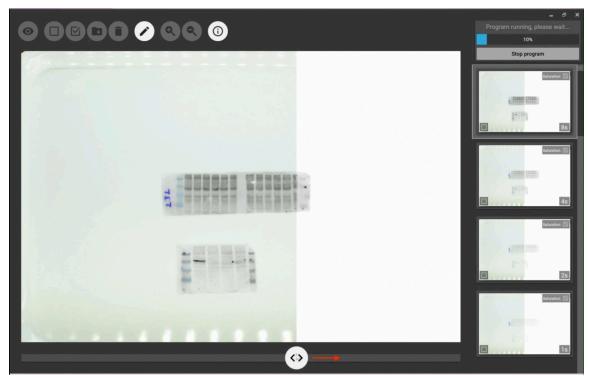
#### 5) View the images

After an image is acquired, its preview image is listed on the right hand side column. Once the user clicks a particular preview image, it will be displayed on the main window. The user can click the "Stop program" button to stop the exposure at any time.

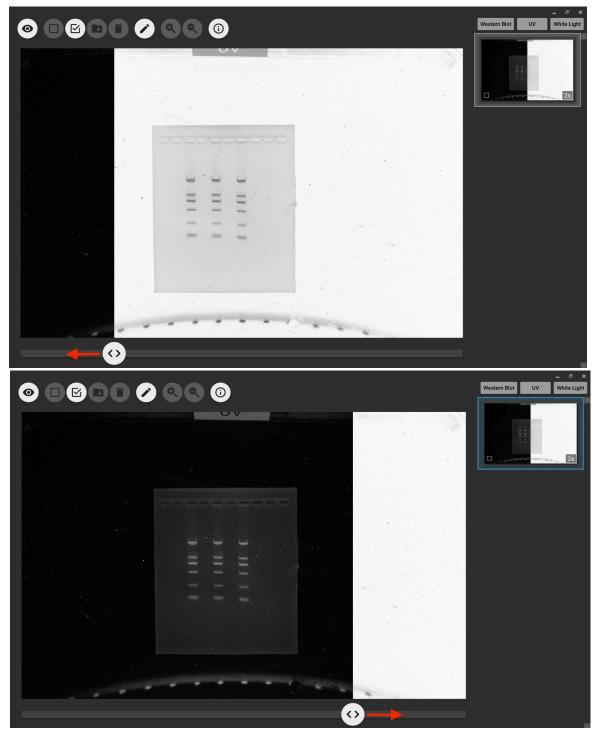


For western blot images, two images will be displayed on the same window. One image is the standard western blot image, the other is the same western blot image with pre-stained molecular markers. They are superimposed, with a slider in the middle. The user can drag the slider to view either of the images.





For DNA/RNA gel images, two images will be displayed on the same window. One is the standard image with black background with white DNA bands, the other is inverted. They are superimposed, with a divider in the middle. The user can slide the divider to view either of the images.



Images taken with white light will be displayed directly on the screen without processing.

## 6) Make notations on the images

By clicking the pen icon, the user can make both hand written and typed notes on the image.



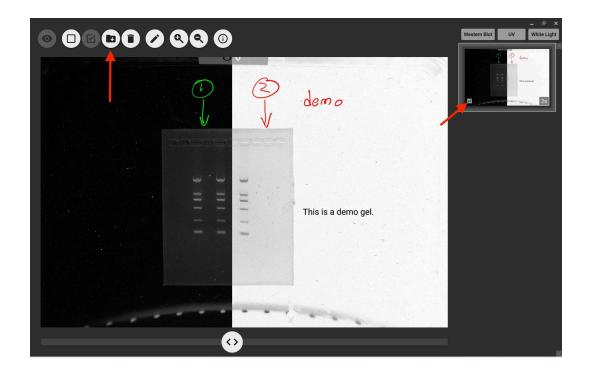
Once the notations are made, the user can click the check mark icon to embed

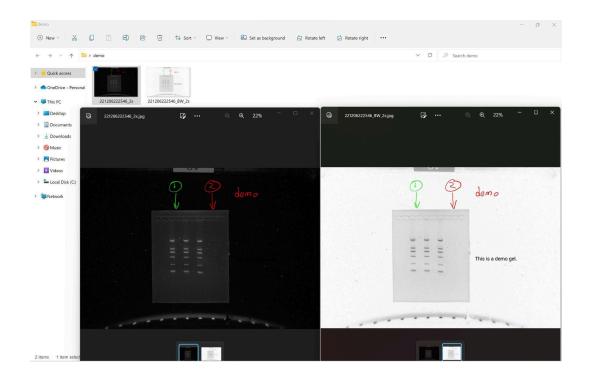


the notes on the image. The embedded notes can not be removed

## 7) Save the images

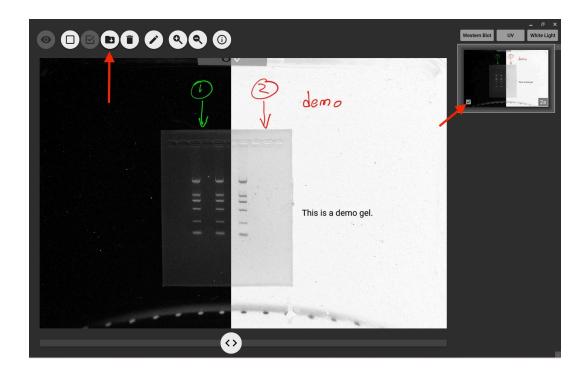
The user can check an image(s) and save it in a destination folder. Both the inverted and non-inverted images are saved.

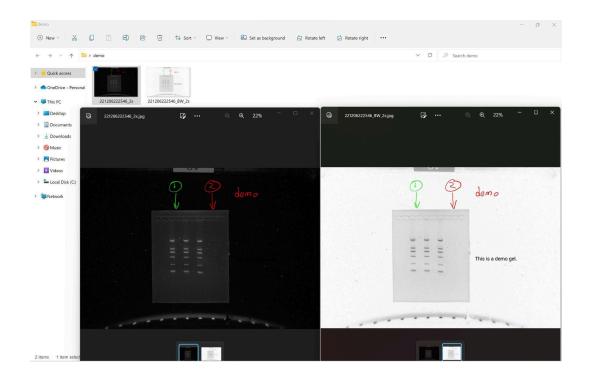




## 8) Save the images

The user can check an image(s) and save it in a destination folder. Both the inverted and non-inverted images are saved.





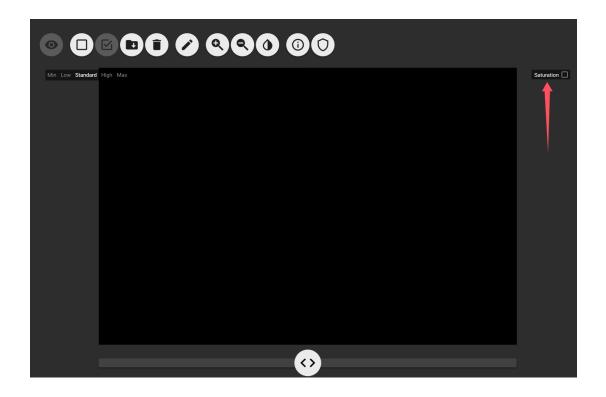
## 9) Saturation button

Overall saturation settings

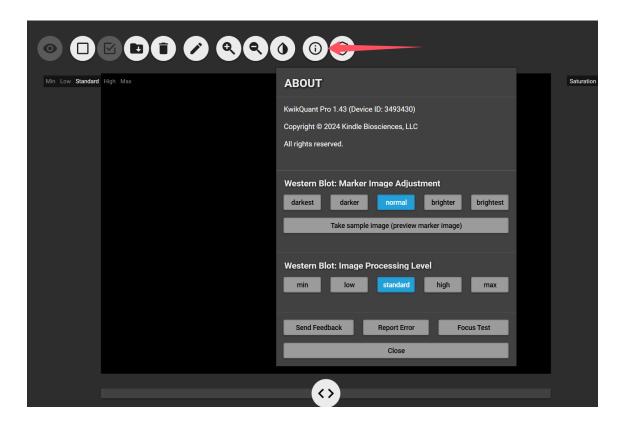
Press this button to highlight overexposed (saturated) areas in red. Turning it off displays the image in grayscale.



Toggle this option above one single image to apply/ disable saturation settings on a specific image.

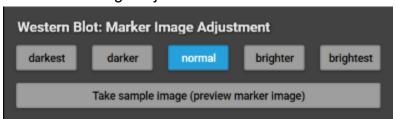


#### 10) Image Quality



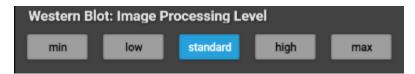
Users can adjust the overall image quality by clicking the "About" button and adjust from "Western Blot: Marker image adjustment" and "Western Blot: Image Processing Level".

Western Blot: Marker image adjustment



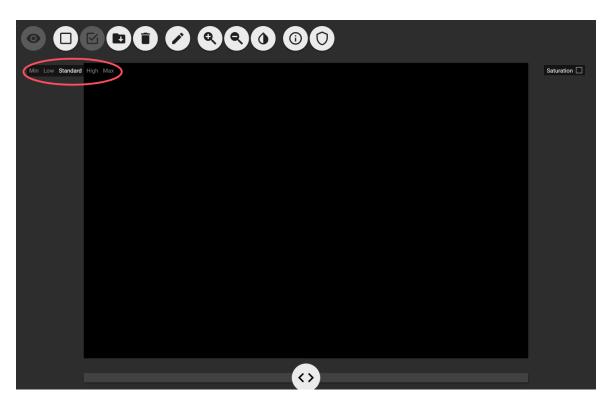
Users can adjust the overall brightness of images taken to fit the user's needs.

Western Blot: Image Processing Level



Users have 5 scales to choose. Minimum level indicates the image is a simple conversion from color picture to Black and White, with very little denoise processing, while max is the opposite.

Users can choose any level of these settings to suit their visual results.



11) Adjusting a single image's processing level

Users can adjust the quality of a specific image by clicking the processing level above the image.

#### 5. Reset button

#### \*\*IMPORTANT NOTICE\*\*

Users must ensure the device is **Powered On, Connected to the Computer,** and the App is Running before pressing the reset button.

Failure to do so may cause severe operational issues, such as **Focus Drift**, **System Misconfiguration**, **or Malfunction**, which may require manufacturer intervention.

When needed (see "Troubleshooting"), users can reset their camera. Please use the following procedure:

- 1) Make sure Imager is powered on, connected with PC and the App is running.
- 2) Take out the rubber plug on the back of the device.
- 3) Insert a long pencil (~20cm) vertically.
- 4) Press the reset button inside.
- 5) When you hear the click, the reset is successful.



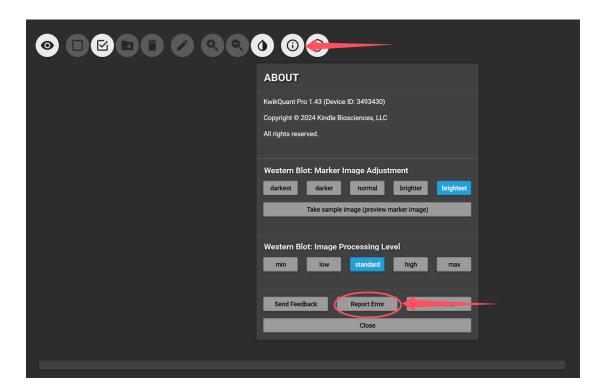
### 6. Troubleshooting

#### 1) Frequent error messages:

Frequent error messages:	Solution:
Unable to stop liveview! Shutdown was already called on this object or the object that owns it.	Power off the device and restart the device.
Unable to start liveview! Invalid status.	Use the reset button to restore imager settings.
Max trial reached!	Use the reset button to restore imager settings.

#### 2) Report Error

For further issues or requesting support, tap "(i)" > "Report Error" to reach our support team.



# 7. Specifications

Image sensor: 24M Pixel color CMOS sensor Imaging sample area: 230mm x 150mm

Power: 12V DC

Power adaptor: 100-240v AC/12v DC

Measurement: 38cm (L) x 29cm (W) x 47cm (H)

Weight: 13.5 kg