

# Short user's manual

VWR® Automated Cell Counter  
Cat. no 49862-2000

Manufactured in China

**TIPS: For more information, please consult the full manual**

## 1- Safety

### 1.1 General safety requirements

Please follow the instructions on all safety warnings and labels in the manual and on the instrument. Users are allowed to maintain the instrument only to the extent of recommended maintenance stated herein.

### 1.2 Electrical safety

Never disassemble the instrument without any authorization against any possible electric shock. If any potential unsafe operation is detected, power off and unplug immediately to disconnect the mains.

### 1.3 Chemical waste safety

Please refer to the SDS and relevant local regulations for handling and disposing of waste.

### 1.4 Biosafety

It is possible that biological samples may transmit infectious diseases. Wear suitable protective glasses, clothing and gloves.

## 2- Symbols and conventions



#### **Flammable environment hazard**

Never operate the instrument in an environment with flammable gases.



#### **Electromagnetic interference hazard**

Make sure to operate the instrument in a controlled electromagnetic environment to avoid any risk associated with instrument failure.



#### **Radiation hazard**

Follow all applicable radiation safety procedures all the time when handling radioactive samples.



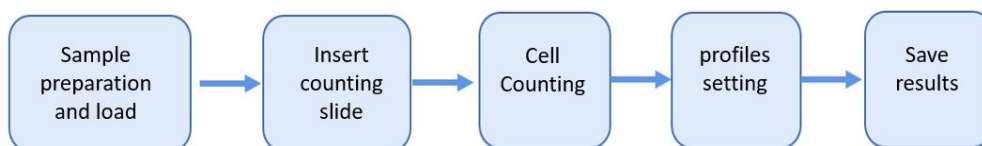
#### **Biological infection hazard**

Samples used in the intended operation of the instrument may be infectious. It is recommended to follow the general laboratory regulations on infection control procedures.

## 3- Intended use

This equipment is designed for measurement and further fluorescence analysis of cell quantity and viability for cell lines, stem cells and primary cell samples. For research only. Not intended for diagnostics use.

## 4- Operation



## 5- Sample preparation

### Bright Field Assays

**[Non-TP] mode:** Non-Trypan Blue mode. Pipette and mix the cell suspension, load 10ul sample directly to the counting slide;

**[TP] mode:** Trypan Blue mode. Mix 10ul cell suspension with 10ul Trypan blue, and then load 10ul sample to the counting slide.

### Note:

- It is important to mix the sample sufficiently for accurate counting;
- After the sample is loaded, it is recommended to allow the slide to stand for 30s before counting for better focusing and counting.

## 6- Main interface



It contains four parts: **System Settings, Previous Counts, Profiles, and Count.**

**Note:** If directly insert the counting slide upon this interface, the system will switch to the [count] interface. Click [Profiles] to enter the profiles setting interface.

## 7- Mode selection

| [Non-TP] Mode | [TP] Mode |
|---------------|-----------|
|               |           |

**[Non-TP] mode:** Count total cell concentration, obtain the total cell size distribution histogram and average diameter.

**[TP] mode:** Count total cell concentration, dead/live cell concentration and proportion, obtain the size distribution histogram and average diameter of dead/live cells.

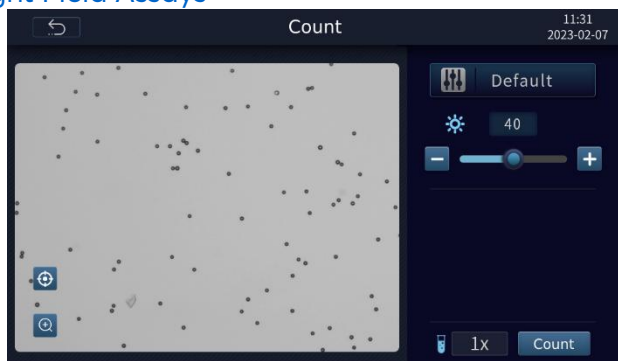
## 8- Profiles Setting

**Size/ Brightness/ Circularity**

- = Max\_Size
- = Min\_Size
- = Max\_Brightness
- = Min\_Brightness
- = Max\_Circularity
- = Min\_Circularity

## 9- Cell Counting

### Bright Field Assays



#### [Count] page

- 1)  **Default** shows current profile file name. Click to enter the Profiles page.
- 2)  Brightness adjustment: If [Auto Exposure] is checked, it will be automatically adjusted. Users can also manually adjust by clicking  & .
- 3)  **1x** is for dilution factor setting, the default dilution factor for the trypan blue mode is "2x".
- 4)  is for focusing. Click it to get the regulator slide  , and then click  and  to focus manually.

(Function of the [Set] icon: customize the focus value. When the instrument is used again, the focus value will be subject to focus fine tuning based on the last set point in the system by default in order to obtain good image quality.)

Function of the [Auto] icon: autofocus.)

- 5)  allows users to zoom in/out the active view/ image.

Click **[Count]**, the counter will run the counting program and then switch to the **[Result]** page

#### [Result] page

- Click  to pop up a diameter distribution histogram, click again to exit.
- Click  to select whether to display cell marker.
- Click  to enter the Adjustment page to re-adjust the profiles.
- Click  to enter the Dilution Calculator page.

Click **[Save]** to save the results to local storage, or click **[Save As]** to rename and save the results to local storage and/or USB flash disk.