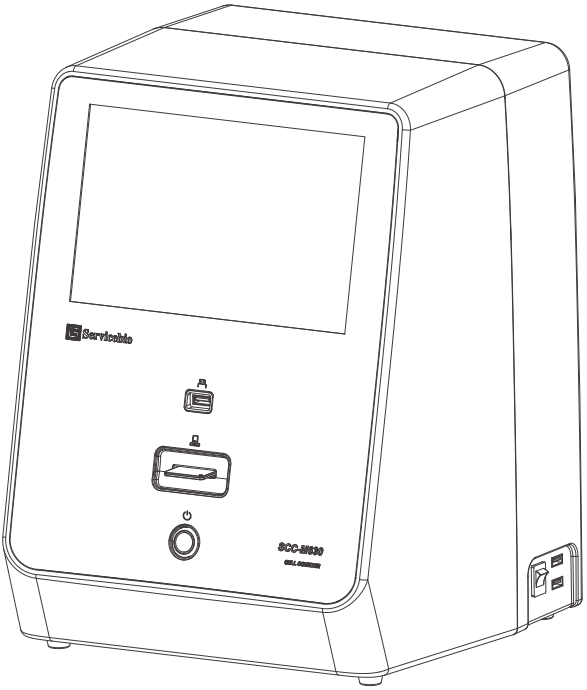
Servicebio®



User Manual

Cell Counter

SCC-M630

Please read the user manual carefully and keep it properly before using the product for future reference.

Wuhan Servicebio Technology Co.,Ltd.

CONTENTS

01 Product Description & Precautions

Thank you for purchasing our product. To fully enjoy our company's comprehensive service, please read the instructions and related illustrations carefully before using this product.

The cell counter is a precise and fast cell analysis system that combines image recognition technology and optical imaging technology to obtain data such as cell number, concentration, and viability with one click, and display the morphology of cells.

ⓘ Warning

- Never place the power cord or plug in water or any other liquid
- Malfunction or damage caused by not following the instructions will not be covered by the warranty

- Always place the cell counter on a flat, stable, heat-resistant workbench
- Do not use it in an environment with abnormal moisture or near open flames with abnormal high temperatures
- If the cell counter cannot operate normally, unplug the power plug immediately
- Do not pull the power cord, and be careful when unplugging the power plug
- Do not move the cell counter while it is working
- The cell counter should be protected against moisture and freezing
- If not in use for a long time, the power switch should be turned off and the power plug should be unplugged
- Do not use the cell counter if the power cord or plug is damaged. Please contact our company's service center for replacement or repair
- Damage caused by not following the instructions is not covered by the warranty

02 Technical Specifications

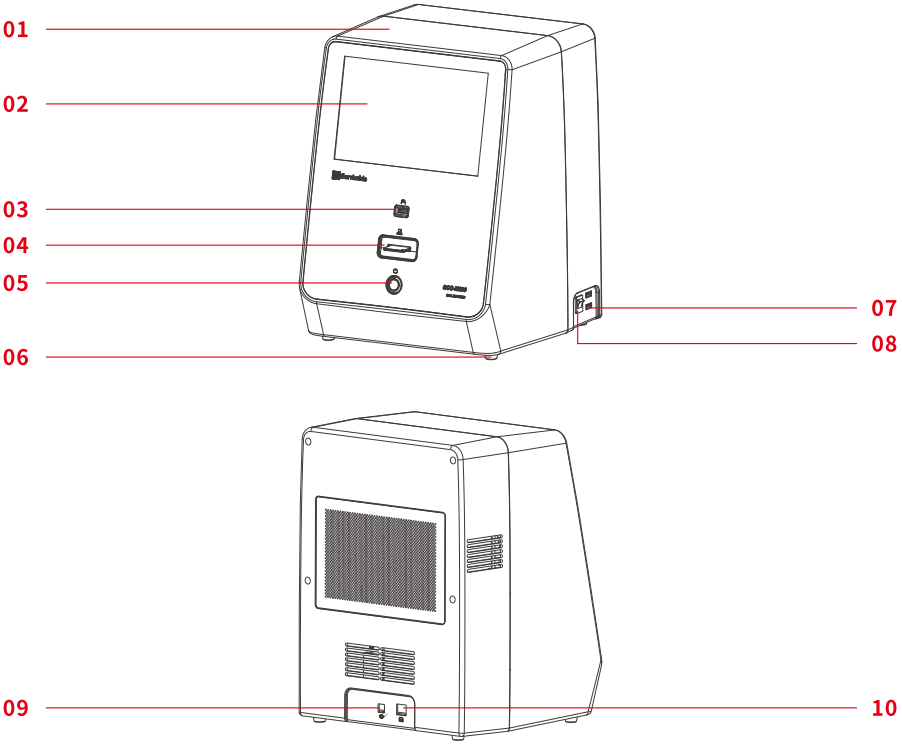
Product Parameters

Product Name	Cell Counter
Cat.No.	SCC-M630
Product Size	287×283×388 mm
Product Net Weight	9.6kg
Product Power	70W
Electrical Parameters	12V
Operating temperature	10-40 ℃
Ambient humidity	＜80%
Consumable type	Disposable counting chamber
Single detection throughput	6 times
Consumable throughput	6-channel
Counting mode	Bright field / Trypan blue staining
Focusing method	Auto-focus
Sample introduction method	Automatic sample feeding
Pixel of material machine for pasting group	6.3 million CMOS
Bright field light source	LED light
Optical magnification	3X magnification

Field of view image	Single channel with 3 views of photography
Display module resolution	LCD10.1" multi-touch 1280×800
Image resolution	3072×2048
Image format	JPG
Result output format	JPG / PDF / CSV
Storage space	256G
Screen size	10.1"
Storage record	1000pcs
Sample type	Suspension-cultured cells / Adherent-cultured cells Mammalian cells / Human cells / PBMC and other cells
Concentration range	5×10^{4}- 1.5×10^{7}cells/mL
Optimal concentration range	5×10^{5}- 1×10^{7}cells/mL
Cell diameter range	4-90μm (Optimal 5-60μm)
Counting Time	Single channel＜ 20s
Sample Volume	10μL

03 Understanding the Product

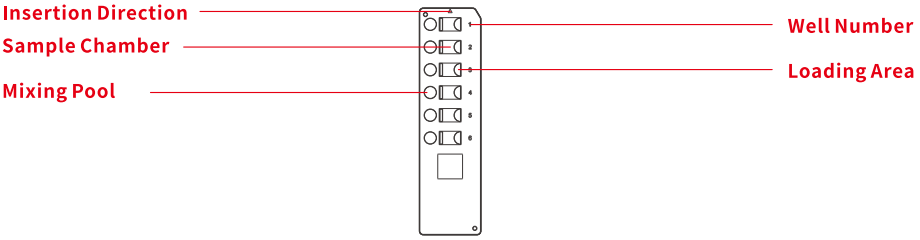
Product Structure Description



01 Main Body	02 Screen	03 USB 3.0 Port
04 Cell Counting Plate Connector	05 Switch	06 Rubber Foot Pad
07 USB 2.0 Port	08 Power Switch	09 Network Port
10 DC Power Port		

04 Using the Product

4.1 Sample Preparation



Cell Counting Plate

1. Take out the cell counting chamber and prepare the sample to be tested and the staining solution; the cell counting chamber is mainly composed of 6 mixing pools and 6 sample chambers.

2.Mix the cell suspension with 0.2% Trypan blue staining solution in a 1:1 ratio in the mixing pool to prepare the sample for detection.

3. Gently transfer 10μL of the prepared sample to the semi-isomorphic loading area of the counting chamber. The sample will be drawn in and spread across the entire chamber through capillary action.

4. After adding the sample, let the counting chamber stand for 30 seconds. Then, insert the counting chamber horizontally into the counting chamber port and push it to the end of the port.

ⓘ Caution

- Avoid pressing or shaking the counting plate vigorously after adding the sample
- When inserting the counting plate, pay attention to the correct orientation
- The cell counting chamber is successfully inserted when it cannot be pushed any further after being pushed into the port
- Do not insert the cell counting chamber during the reset and self-check process. During the self-check, a pop-up window with the message "Self-checking" will appear on the screen, and the power button on the front of the instrument will flash red. After the self-check is completed, the green light will remain on, and the pop-up prompt on the screen will disappear
- Trypan blue stain (0.2%) has a better staining effect on live and dead cells in cell samples. It is recommended to use 0.2% trypan blue stain to stain cell samples.
- The left side of the cell counting chamber is equipped with 6 mixing pools, each with a volume of 20μL. Wipe off any residual liquid with a tissue.

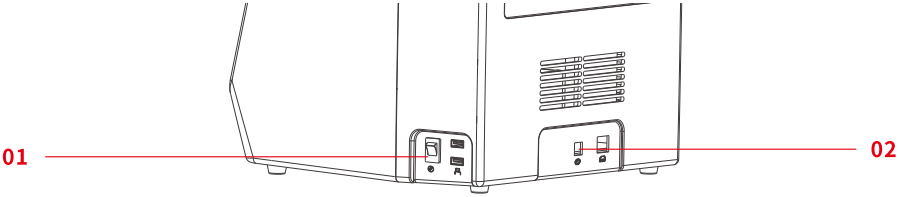
4.2 Powering On and Operation

1. Plug the power cable into the DC power port of the instrument.

2.Insert the power cable three-prong plug into an AC power outlet.

3. Press the "I" rocker switch located at the lower right side of the machine to turn on the power. The switch light will remain on.

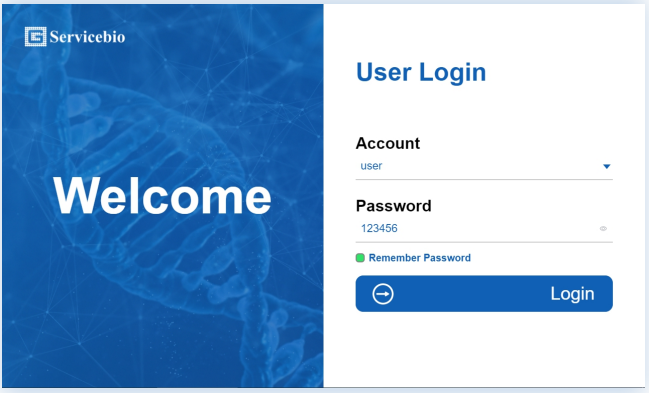
4. Press the power button located below the screen to turn on the device. During the boot process, the button flashing red light indicates that the system is performing a self-check. After the self-check is completed, the green light will remain on.



01 Power Switch

02 DC Power Port

4.3 User Login



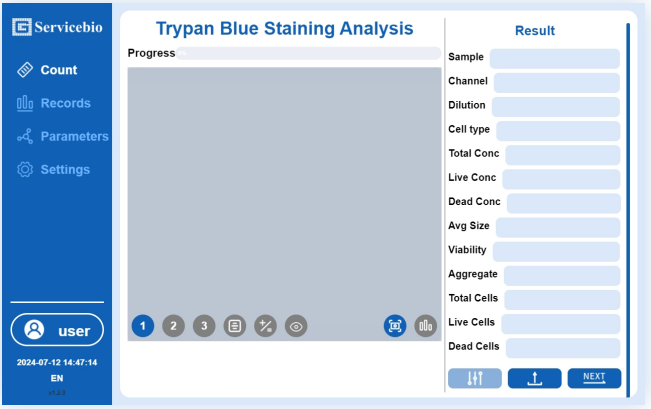
Login Interface

After the instrument is powered on, a user login window will appear on the screen. For initial login, the user fills in the account information, password, checks "remember password" and logs in(Initial account: user, initial password: 123456). For subsequent logins, click ▼ to bring up a drop-down menu to select the account and log in.

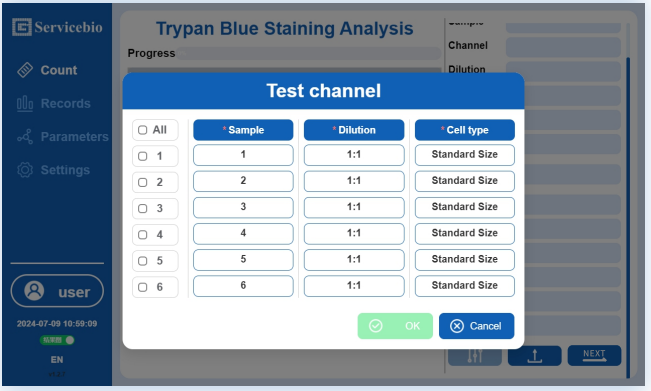
4.4 Sample Measurement

After logging in, the user enters the main interface of the cell counter. The system automatically enters the sample measurement interface and pops up a window for editing the test well positions. The left navigation bar of the cell counter interface displays four functional modules, allowing users to operate according to experimental attributes and needs.

Users can click the button to log out of the current account and perform a shutdown operation.

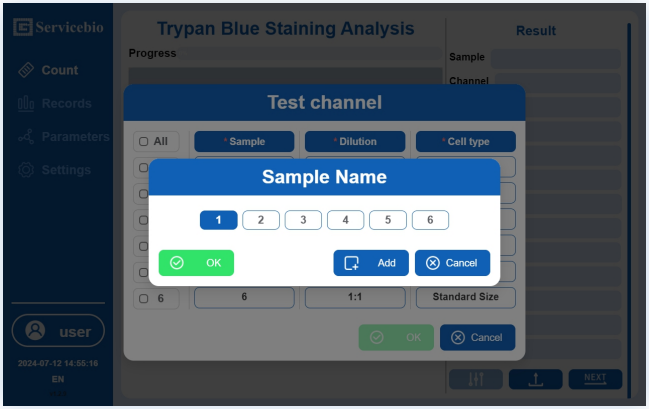


Sample Measurement Interface

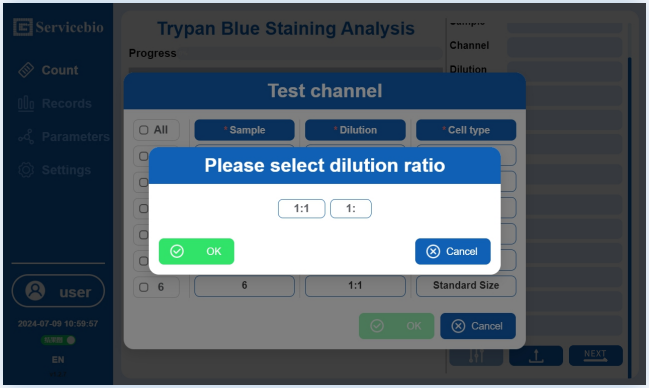


Trypan Blue Staining Analysis/Selcet Test channel Interface

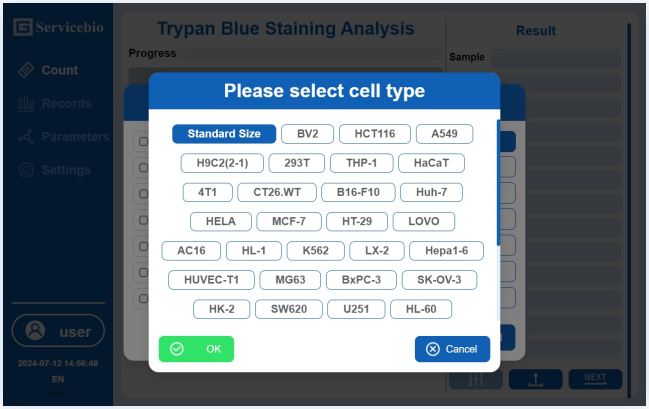
When editing the well position for Channel 1, click 1 .Select or create a new sample name, click 1:1 to select the default cell sample mixed with Trypan Blue solution at a ratio of 1:1 . Select 1: to edit the mixing ratio of the cell sample and Trypan Blue solution. Click Standard Size to edit the cell type, which should be consistent with the cell parameter library.



Select sample name



Select dilution ratio



Select cell type

Upon entering the Trypan Blue staining analysis interface, the user inserts the cell counting plate containing the sample into the cell counting plate port and selects the test well positions to measure different positions on the sample plate.

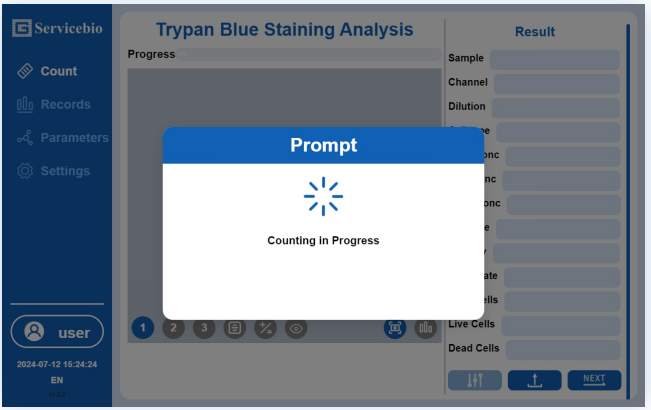
Click on the well position selection box to choose the desired well positions for measurement, then select the sample name, dilution ratio, and cell type. After completing the editing of the test well positions, click on OK to start the counting.

Click NEXT to proceed to the next count.

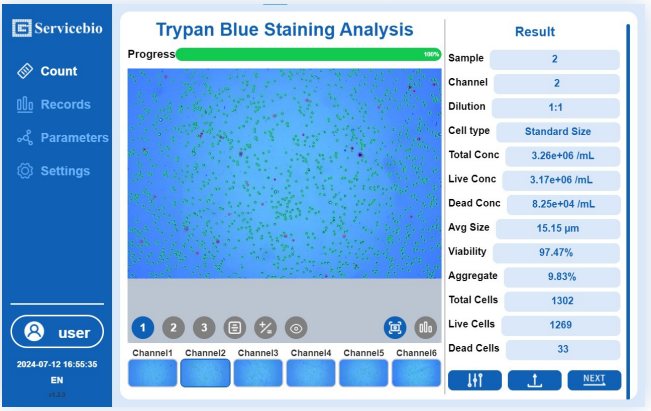
Note:

1. The instrument has a total of six test wells, and up to six samples can be tested at a time. The well positions are represented by numerals 1, 2, 3, 4, 5, 6.

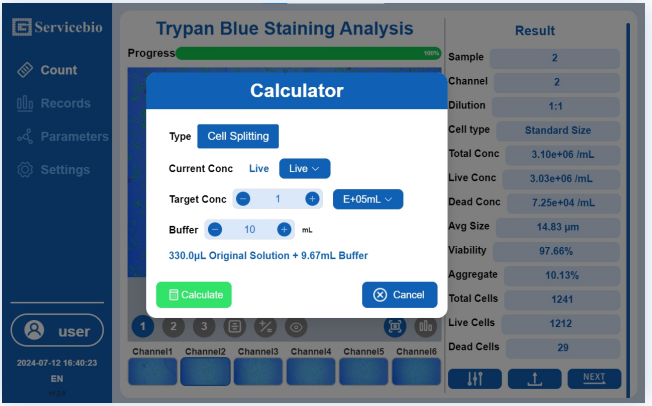
2. The initial state of the sample name, dilution ratio, and cell type in the select test well positions interface is set to default. Users can click on the display box to edit them according to their needs.



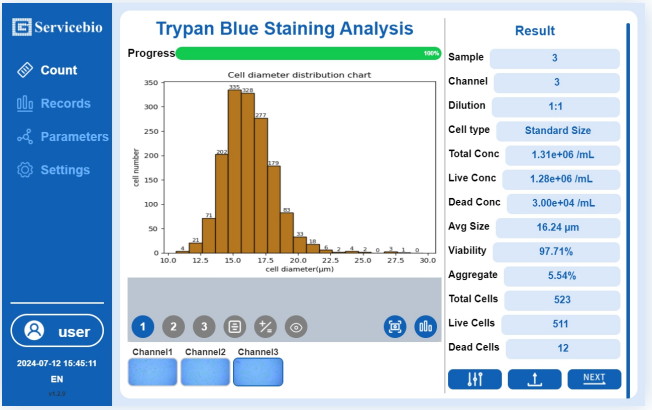
Trypan Blue Staining Analysis/Counting in progress interface



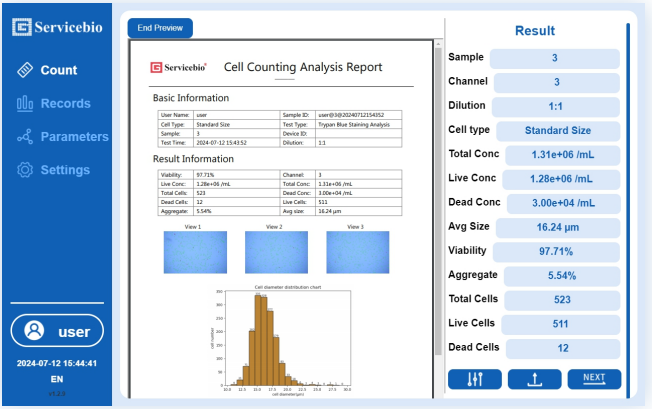
Trypan Blue Staining Analysis/Counting results display interface



Calculator Interface



Cell Passage Calculator



Analysis report interface

After the test is completed, the detection data results are displayed in the sample data column on the right. The three field-of-view images of the test results are shown in the sample measurement main interface. By clicking the ① ② ③ button below the field-of-view image, different field-of-view states can be viewed.

Clicking the button can restore the image to its original state and center it.

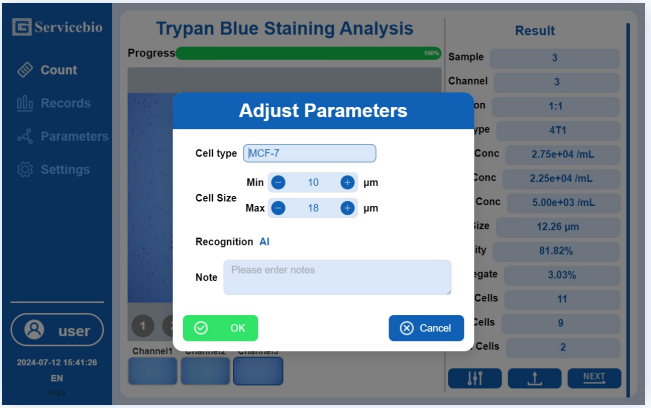
Clicking the button can switch between the original image and the result image.

Clicking the button allows viewing the cell diameter distribution chart.

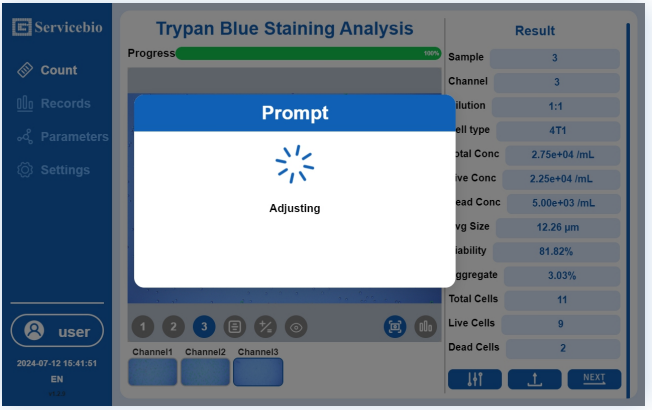
Click the button to bring up the cell passage calculator interface, calculate the required volumes of cell sample and diluent to dilute the current sample to a certain concentration. Click Total (Total Cells) to select the total cell concentration, viable cell concentration, or dead cell concentration of the current sample data for calculation; click E+05mL to select different concentration orders of magnitude.

Clicking the button allows the user to export the current test analysis report when needed.

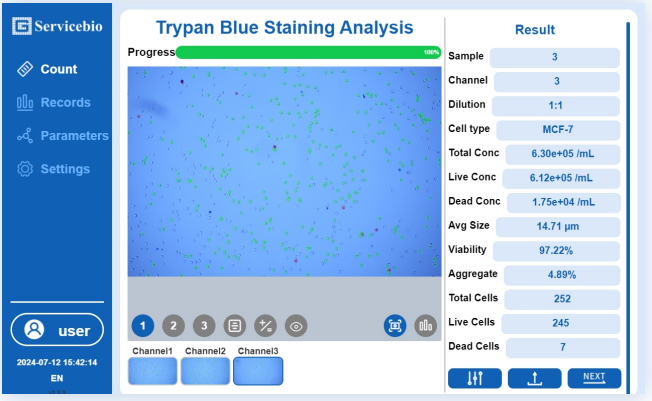
Clicking the button allows previewing the current counting analysis report, which mainly includes basic information, result information, and data information such as the cell diameter distribution chart.



Adjust parameters interface



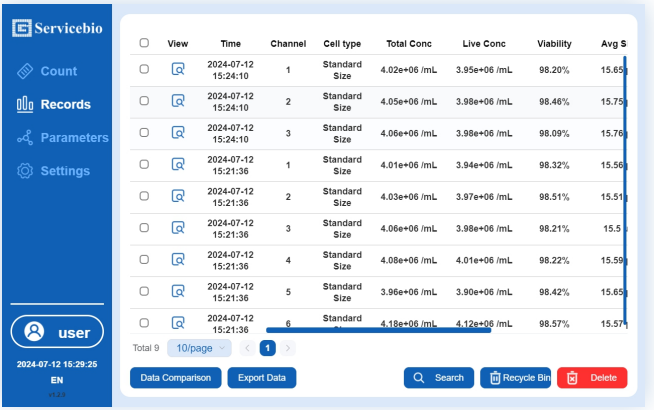
Parameter adjustment interface



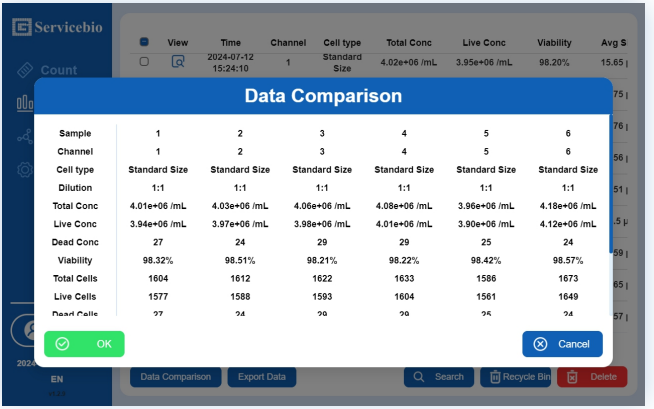
Parameter adjustment completion interface

After the sample count is completed, click to adjust the cell diameter parameters of the current sample data, screen out cells that meet the parameter range, generate an adjustment record, and automatically save it.

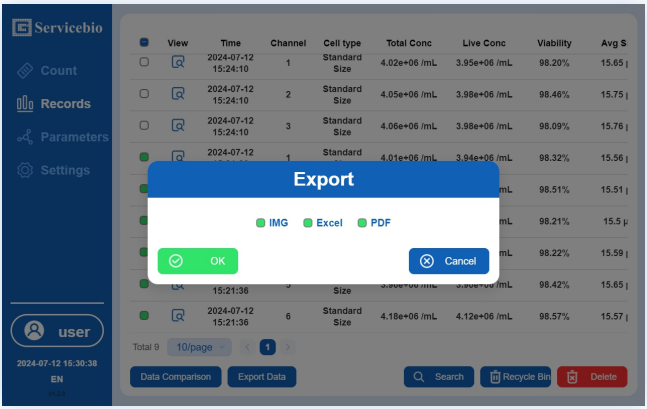
4.5 Test Record



Test Record Interface



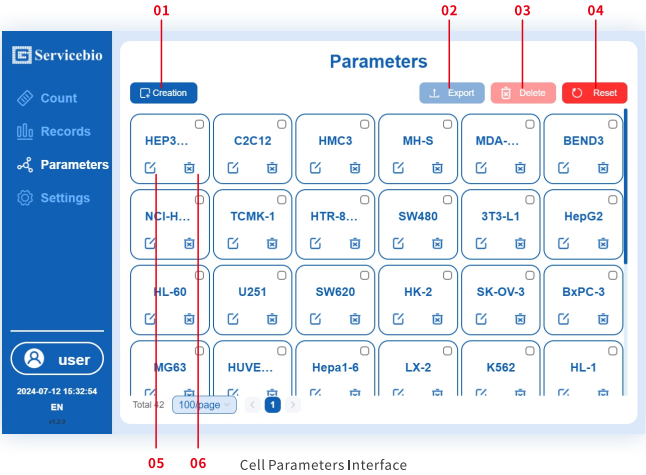
Data Comparison Interface



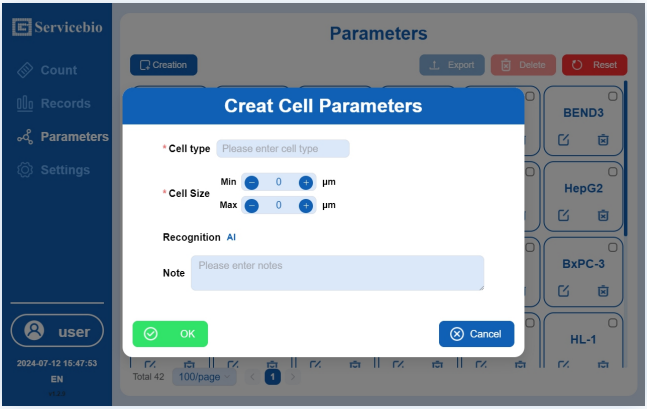
Export Interface

By clicking on the **Records** Test Records in the left navigation bar, you can view, compare, and export the records of the Taqman Blue staining test.

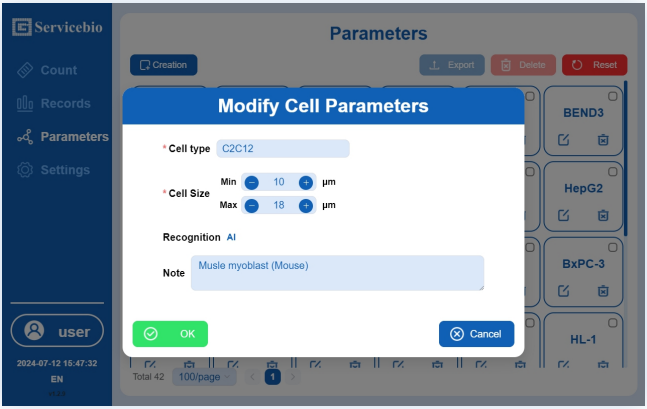
4.6 Cell Parameter



Cell Parameters Interface



Creat Cell Parameters Interface



Export cell parameters interface

Click the cell parameter in the left navigation bar to enter the cell parameter interface; click Creation to fill in the cell type and cell diameter range to create new cell parameters.

01 **New** Create New Cell Parameters

02 **Export** Export Cell Parameter Records

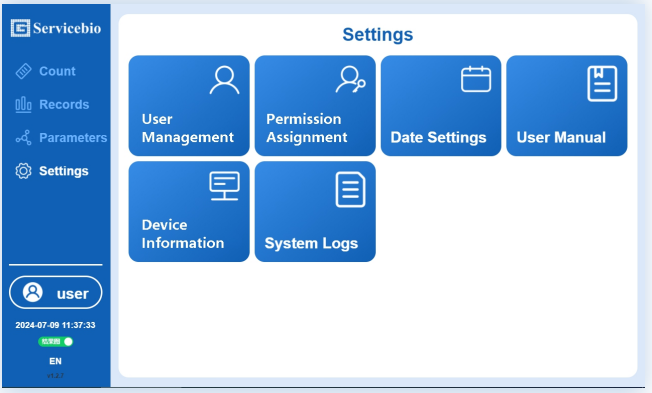
03 **Delete** Bulk Delete Cell Parameters

04 **Reset** Reset Data in Cell Parameters

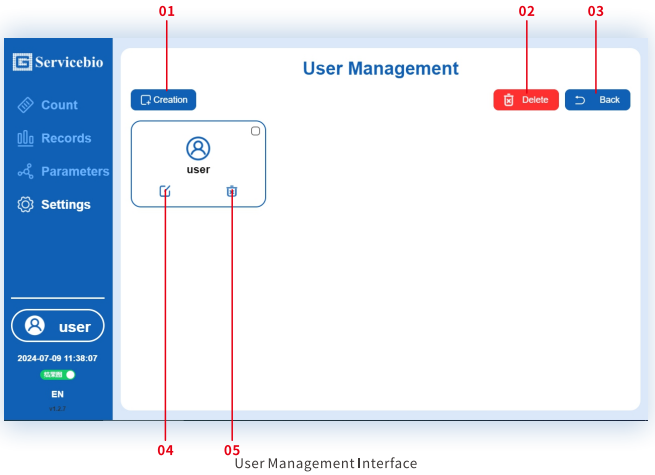
05 **Edit** Edit the Cell Parameters

06 **Delete** Delete the Cell Parameters

4.7 System Setting



System Settings Interface



User Management Interface

Click on  to enter the User Management interface.

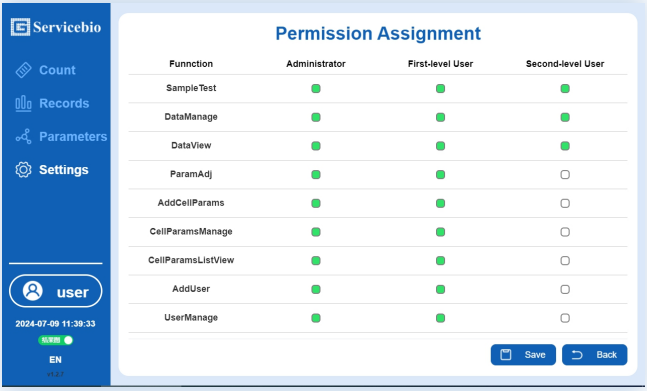
01 **New** New Account

02 **Delete** Bulk Delete Account

03 **Back** Return to previous interface

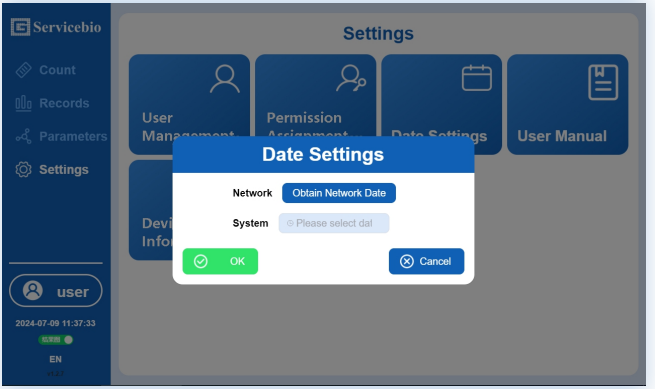
04 **Edit** Edit this account

05 **Delete** Delete this account



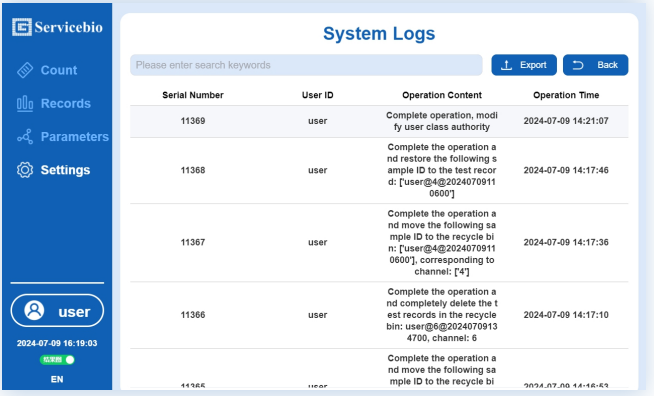
Permission Assignment interface

Click on  to enter the Permission Assignment interface.



Date Settings Interface

Click on  to enter the Date Setting interface.



System Logs Interface

Click on  to enter the System Logs interface.

4.8 Cell Counting

1. Take 10μL of prepared sample and add it to the sample loading zone in the cell counting plate.

2. After sample loading, insert the cell counting plate into the cell counter's port.

3. Perform setup operations before cell counting on the cell counter.

4. Start cell counting and wait for the counting to finish. The sample data column on the right side of the screen displays the cell count result.

5. The cell counter shows cell images (green circles indicate live cells, red circles indicate dead cells) and counting results. Each channel takes three field-of-view images, and the counting results mainly show total cell concentration, live cell concentration, dead cell concentration, cell viability, average diameter, cluster rate and other data.

4.9 Shutdown Operation

Users can click the button at the bottom left corner to perform the shutdown operation.

05 Warranty Service

Warranty Service Description

If the instrument or parts are damaged during the warranty period, we will be responsible for free repair or replacement of the damaged components.

Damage caused by the following reasons is excluded:

1.Damage caused by improper use;

2.Repair or modification not carried out by our company;

3.Replacement of parts not produced or authorized by our company;

4.Contamination and corrosion caused by improper reagents, solvents, or samples.

If you require more services, please visit our company's official website or Email our company Emaill adress : info@servicebio.com

When purchasing the product, please fill in the following warranty card information carefully and keep it properly.

Product Name	
Cat.No.	
Purchase Date	
Address	
Model	
Product Number	
Quality Feedback	

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