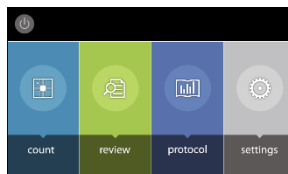


This Quick Reference Guide provides instructions to use the Cell Counter model R1. For detailed instructions, please refer to the user manual in the supplied USB memory.

Using the R1 with Trypan Blue Stain

1. Select protocol

- Select **protocol** from the main menu.
- Select the DEFAULT or desired protocol.
- Make sure the dilution factor is set to 2 to count with trypan blue.
- Press **Load** to apply the selected protocol.



2. Prepare & load sample

- Mix 10 µL cell suspension with 10 µL trypan blue. Pipette gently.
- Open a new Cell Counting Slide.
- Hold the Cell Counting Slide by its edges and load 10 µL of the cell sample into a sample chamber.



3. Insert slide

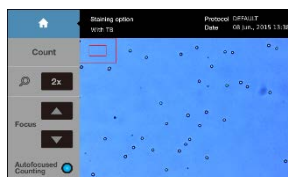
- Insert the Cell Counting Slide face up and sample-side first into the counting slide port of R1.

! Important! Do not insert the Cell Counting Slide facedown.



4. Count cells

- Select **count** from the main menu.
- Make sure the staining option is "With TB".
- Press the circle next to **[Autofocused Counting]**. The circle will turn blue when the autofocus is activated.
- Press **[Count]**.



Results

1. Save and print results

- Insert a USB memory.
- Press **[Save/Print]** in the Results screen.
- Select the desired saving options (analyzed image, raw image, report).
- Name the count with the onscreen keyboard. Press **Add Date/Time** to add the date and time to the name.
- Press **Save**. A folder will be created to contain the generated files.
- Press **Print** to get a printed report of the cell count results.

2. Image View

- Press **[Image]** to view the captured image of the analyzed cell sample.
- Press the magnifier button to zoom in and out of the image.
- Press **Tag** to label what was counted as live cells with green circles and dead cells with red circles.

3. Histogram and Gating

- Press **[Histogram & Gating]** to see a graphical representation of the cell count results.
- Press **Total/on**. The button will become **Live/on** and display the size distribution of only live cells. Press **Live/on**. The button will become **Dead/on** and display the size distribution of only dead cells.
- Select a light grey limit icon. Press the arrows to alter the size limits.
- Press **Apply** to set the size gating limits. The count results will adjust accordingly.
- Press **Cell number** to change the Y-axis to **Cell Concentration**.
- Press **Cluster Map/off** to change it to **Cluster Map/on** and show the distribution of cell clusters.

4. Dilution Calculations

- Press **[Dilution]** to view the dilution calculator.
- Press **[Total]** to change the current concentration to **[Live]**, the concentration of live cells in the cell suspension.
- Input the values into the blanks for the desired final concentration and volume.
- Press **Calculate** to receive directions for dilution.

This Quick Reference Guide provides instructions to use the Cell Counter model R1. For detailed instructions, please refer to the user manual in the supplied USB memory.

Intended Use

The R1 is an electrical laboratory instrument for scientific research use only. It is not a medical, therapeutic, or in vitro diagnostics device.

General Guidelines

Follow the instructions below to obtain the best results with the R1.

1. The R1 accurately detects and counts cells 3-60 μm in size at concentrations ranging from 5×10^4 to 1×10^7 cells/mL.
2. Perform cell counting within three minutes of mixing samples with trypan blue for accurate cell viability measurements. If necessary, count your sample twice (duplicate readings) and take an average.
3. Hold Cell Counting Slides by the edges to avoid touching the optical surface. Ensure that the optical surfaces of the slide do not become smudged, damaged, or contaminated.
4. Do not reuse Cell Counting Slides. Used slides must be disposed as biohazardous waste according to the rules and regulations of your local government.
5. As the R1 is calibrated before shipping, recalibration before use is not necessary. However, if recalibration is needed, please refer to Section 2.3.3: Settings: Background Calibration in the user manual.

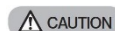
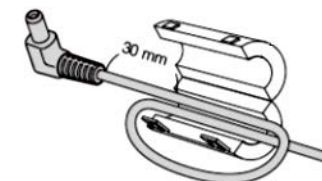
Safety Precautions

Before using this instrument, read the user manual carefully to ensure that you know how to operate it safely and correctly. To protect yourself and others from personal injury or damage to property, it is essential that you read the warnings and information provided. Use the instrument as specified by Olympus.

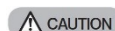
1. Install the instrument on a sturdy and level surface. Avoid vibrations from other devices.
2. Do not touch any of the components with wet hands.
3. Use the components provided or authorized by Olympus. If the proper combination of components are not used, product safety performance cannot be guaranteed.

Ferrite Core Placement

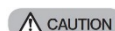
Take a ferrite core and open it. Place the plug side of the cable of the AC adapter in the ferrite core as shown in the figure. Close the ferrite core.



The AC adapter cord and power cord are vulnerable to bending and twisting. Do not apply excessive force.



Always use the AC adapter and power cord provided by Olympus. If the proper AC adapter and power cord are not used, the electric safety and EMC (Electro-Magnetic Compatibility) performance of the device cannot be guaranteed.



Connect the ground terminal of the power cord and that of the power outlet. If the device is not grounded, our intended electric safety and EMC performance of the device cannot be guaranteed.



This device complies with the requirements of both directive 2004/108/EC concerning electromagnetic compatibility and directive 2006/95/EC concerning low voltage. The CE marking indicates compliance with the above directives. This system is applied with the requirements of standard IEC/EN61326-1 concerning electromagnetic compatibility. Immunity: Applied to industrial environment requirements. Emission: Class A, applied to industrial environment requirements. Some interference may occur if this system is used in a domestic location.

OLYMPUS®

www.olympus-global.com

OLYMPUS CORPORATION

Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0914, Japan

Distributed by

OLYMPUS EUROPA SE & CO. KG

Wendenstrasse 14-18, 20097 Hamburg, Germany

OLYMPUS SCIENTIFIC SOLUTIONS AMERICAS CORP.

48 Woerd Avenue Waltham, MA 02453, U.S.A.

OLYMPUS SINGAPORE PTE LTD.

491B River Valley Road, #12-01/04 Valley Point Office Tower, Singapore 248373

OLYMPUS AUSTRALIA PTY. LTD.

3 Acacia Place, Notting Hill VIC 3168, Australia

OLYMPUS KOREA CO., LTD.

8F Olympus Tower, 446 Bongeunsa-ro, Gangnam-gu, Seoul, Korea 135-509