

VIEW RESULTS OCT
1, 2008 - 17:55:01
[100 of 100, NEWEST]
ID: A456374 Total cell
conc./ml 4.20 x 10⁶
Live cell conc./ml 2.10 x
10⁶ Live cells 50% SEP
2, 2008 - 11:25:45 [99
of 100] Total cell conc./
ml 5.32 x 10⁶ of IQ/OQ
system check 11:44:32

TC10™ Automated Cell Counter Quick Guide

The TC10 automated cell counter counts mammalian cells in one simple step, with or without trypan blue staining, and assesses cell viability via trypan blue dye exclusion.

Important: Carefully read the safety information and instrument operating specifications provided in the TC10 Automated Cell Counter Instruction Manual before using the system.

Preparing Samples

The TC10 automated cell counter is designed to count suspended cells that have been grown as adherent or suspension cells. The TC10 counter demonstrates high reproducibility when counting cells within the ranges of 5×10^4 – 1×10^7 cells/ml and 6–50 μm cell diameter.

Important: Handle the TC10 counting slides using the edges and avoid touching the optical surface of the slides. TC10 counting slides cannot be reused. Dispose of used slides as biohazardous waste according to your local environmental health and safety regulations.

Preparing Samples without TC10 Trypan Blue Dye

Pipet 10 μl of the cell suspension into the **outer opening** of either of the two chambers of the counting slide (Figure 1).

Preparing Samples with TC10 Trypan Blue Dye

1. In a micro test tube, combine 10 μl of the cell suspension with 10 μl of TC10 trypan blue dye. When counting the sample in duplicate, combine 20 μl of the cell suspension with 20 μl of TC10 trypan blue dye. Gently pipet up and down ten times to mix the cells and dye.
2. Within 10 minutes of mixing, pipet 10 μl of the mixture into the **outer opening** of either of the two chambers of the counting slide (Figure 1).

Performing Cell Counts

1. Press **Home** and completely insert the slide into the slide slot (Figure 2). If the slide is not completely inserted, the instrument does not detect the slide and counting does not start.



Fig. 1. Loading the sample onto a slide.



Fig. 2. Inserting the slide into the TC10 cell counter; counting automatically begins.

2. The TC10 cell counter automatically detects the presence of the slide and initiates a count. The TC10 counter also automatically detects the presence of trypan blue dye.

Important: Do not remove the slide or interrupt the instrument while it is performing the count.

3. **For samples without trypan blue dye** — on the Current count screen, the TC10 counter provides the total cell count per ml (Figure 3).

4. **For samples with trypan blue dye** — on the Current count screen, the TC10 counter provides the total cell count per ml, live cell count per ml, and percentage of live cells (Figure 4). It also accounts for a 1:1 dilution with the dye and provides a dilution calculation based on live cells.

Important: If the number of cells is above or below the range detected by the instrument, a “Value out of range” message appears on the Current count screen. Press the down arrow key to select **View image**, then press **Enter**. View the image of the cells and determine whether the sample should be diluted or concentrated. Repeat the cell count.

5. Once the instrument completes the cell count, remove the slide from the slide slot.

Additional Analysis Options

Additional analysis options are available in the Current count screen. Use the up or down arrow keys and press **Enter** to access the following screens: Dilution calculator, View image, Print count, and View histogram. Helpful tips for each screen are provided below.

Dilution Calculator

1. In the Dilution calculator, the current count is used as the starting cell concentration. The parameter that is ready to be modified is highlighted. Press the up or down arrow key to find the correct value, then press **Enter** to confirm the selection.
2. To print the Dilution calculator screen, press the down arrow key and select **Yes**.



Fig. 3. Current count screen showing a total cell count (without trypan blue dye).

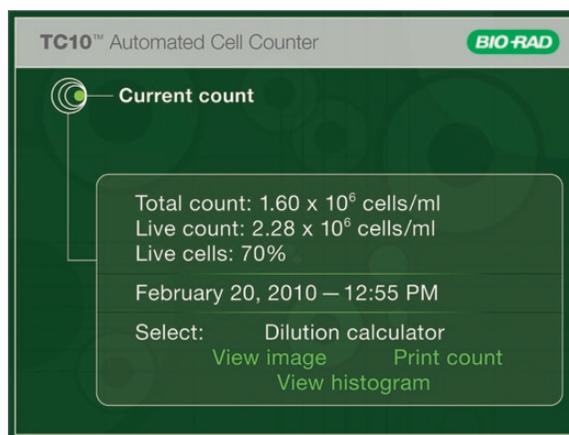


Fig. 4. Current count screen showing total cell count, live cell count, and percentage of live cells; cell viability is measured via trypan blue dye exclusion.

View Image

Use the up arrow key to zoom in on an image and examine cells in detail. Use the down arrow key to zoom out.

Print Count

The TC10 automated cell counter allows you to print the cell count using the TC10 thermal label printer (catalog #145-0005) connected to USB port A or USB port B on the cell counter.

View Histogram

The histogram of cell size distribution from the most recent count shows the approximate cell diameters (in μm) on the x-axis and the cell counts on the y-axis. The cell counts are based on the imaged area of 4 mm^2 .



**Bio-Rad
Laboratories, Inc.**

Life Science
Group

Web site www.bio-rad.com USA 800 424 6723 Australia 61 2 9914 2800 Austria 01 877 89 01 Belgium 09 385 55 11 Brazil 55 31 3689 6600
Canada 905 364 3435 China 86 20 8732 2339 Czech Republic 420 241 430 532 Denmark 44 52 10 00 Finland 09 804 22 00 France 01 47 95 69 65
Germany 089 31 884 0 Greece 30 210 777 4396 Hong Kong 852 2789 3300 Hungary 36 1 459 6100 India 91 124 4029300 Israel 03 963 6050
Italy 39 02 216091 Japan 03 6361 7000 Korea 82 2 3473 4460 Mexico 52 555 488 7670 The Netherlands 0318 540666 New Zealand 0508 805 500
Norway 23 38 41 30 Poland 48 22 331 99 99 Portugal 351 21 472 7700 Russia 7 495 721 14 04 Singapore 65 6415 3188 South Africa 27 861 246 723
Spain 34 91 590 5200 Sweden 08 555 12700 Switzerland 061 717 95 55 Taiwan 886 2 2578 7189 United Kingdom 020 8328 2000