

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 10/00
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 micron 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 μ l of the cell suspension into the 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 μ l of the cell suspension with 10 μ l of TC10 trypan blue dye. When counting the sample in duplicate, combine 20 μ l of the cell suspension with 20 μ l of TC10 trypan blue dye. Gently pipet up and down ten times to mix the cells and dye.
2. Within 30 minutes of mixing, pipet 10 μ l of the mixture into the 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.

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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, and Print count. 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).

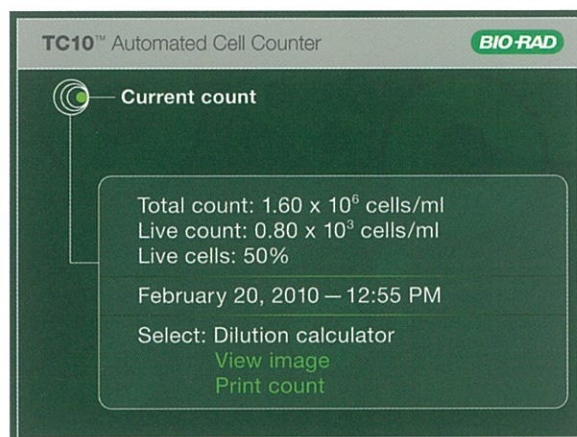


Fig. 4. Current count screen showing total cell count, live cell count, and percentage of live cells; cell viability is measured via trypan blue dye exclusion.

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 label printer (catalog #145-0005) connected to USB port A or USB port B on the cell counter.



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