Protocol

Materials

- Hemocytometer (Neubauer, Improved Neubauer, Bürker, or Bürker-Türk)
- Trypan Blue (TB) or Erythrosin B (EB) stain for viability
- Microscope compatible with SnapCyte™ Adapter
- SnapCyte™ Adapter and App
- Cell culture medium
- Pipettes and tips
- Cell suspension

Procedure

***Sample Preparation**:*

Ensure your cell cultures are free from debris and clumps for clear imaging.

1. Harvest your cell culture and prepare a cell suspension in an appropriate medium.
2. Stain the cells with Trypan Blue (TB) or Erythrosin B (EB) to differentiate live and dead cells. Typically, use a 1:1 dilution (e.g., 10 µL of cell suspension mixed with 10 µL of stain).
3. Gently pipette 10-20 µL of the stained cell suspension into the hemocytometer chamber. Ensure that the suspension fills the chamber evenly without overfilling.

Capture and Analyze Images:

When using a hemocytometer, always capture images from the same specific regions (e.g., the four corner squares). This consistency helps reduce variability between counts.

1. Set up the SnapCyte™ Adapter on your microscope and focus on the hemocytometer grid at 10X magnification. Ensure the grid lines and cells are clearly visible.
2. Open the SnapCyte™ App and create a new experiment or a new snapshot. Select the "Hemocytometer" option to enable automatic cell concentration calculations.
3. Capture images of the hemocytometer chambers using the SnapCyte™ App. For best results, capture at least 4 images of the central grid area.
4. The SnapCyte™ App will automatically analyze the images to count cells and assess viability.

avoid areas near the edges of the hemocytometer grid where cells may appear distorted or unevenly distributed

Quantification:

Review Results:

1. Use the Image thumbnails in your experiment to review individual images and confirm cell counts. Adjust the Regions of Interest (ROIs) if necessary.

Export Data:

Always visually verify that the software is accurately identifying cells and not including debris or artifacts

1. Utilize the Graph Tab in the SnapCyte™ App to visualize your data. You can choose to display data as Mean, Mean + SD, etc.
2. Export the data for further analysis or download the images for documentation and presentations.