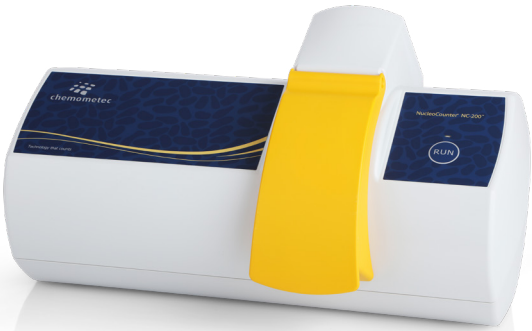
Technology that counts

chemometec

Quick Guide

to the easiest cell count ever!



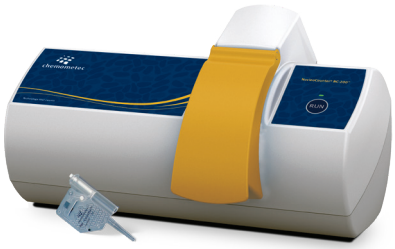
NucleoCounter® NC-200™

How to get started

Dear NucleoCounter® Customer,

Thank you for purchasing the NucleoCounter® NC-200™ which offers the easiest one-step viability and cell count ever.

The NucleoCounter® NC-200™ Concept



- ✓ One step viability and cell count
- ✓ No pre-treatment
- ✓ Fast and easy operation
- ✓ Safe sample handling and disposal
- ✓ Excellent reproducibility
- ✓ User adaptable counting protocols
- ✓ 21 CFR Part 11 ready

NucleoView™ Software
Included on a USB stick for an unlimited number of installations.

Via1-Cassettes™
For one-step viability and cell count. Contains DAPI and Acridine Orange.

OPTIONAL

Solution 10
Can be used for disaggregation of aggregating cells.

OPTIONAL

NC-200™ laptop stand
Can be used to minimize footprint and facilitates even easier operation.

How to get started - eight easy steps to install the NucleoCounter® NC-200™

1. Unpack the NucleoCounter® NC-200™ instrument and plug it in the mains outlet. Do NOT connect the USB cable to the PC.
2. Make sure that there are full administrator rights on the PC during the installation of the NucleoView™ NC-200™ software.
3. Insert the USB stick in the PC and open the “Install_Guide.html” file for detailed installation instructions.
4. Open the “Install NucleoView NC-200 X.X.X.X.exe” file (the Xs indicate the version number e.g. 1.4.3.0). ⚠ Do NOT open the .bin file.
5. Follow the instructions on the screen. After the software installation it will be required to restart the PC.
6. Open the NucleoView™ NC-200™ software by double clicking on the NucleoCounter® NC-200™ icon on the desktop to continue the installation of the instrument.
7. Follow the on-screen instructions to complete the installation of the instrument.
8. The NucleoCounter® NC-200™ is ready to use when the LED indicator light on the instrument turns green.

For detailed instructions, please read the User Guide.

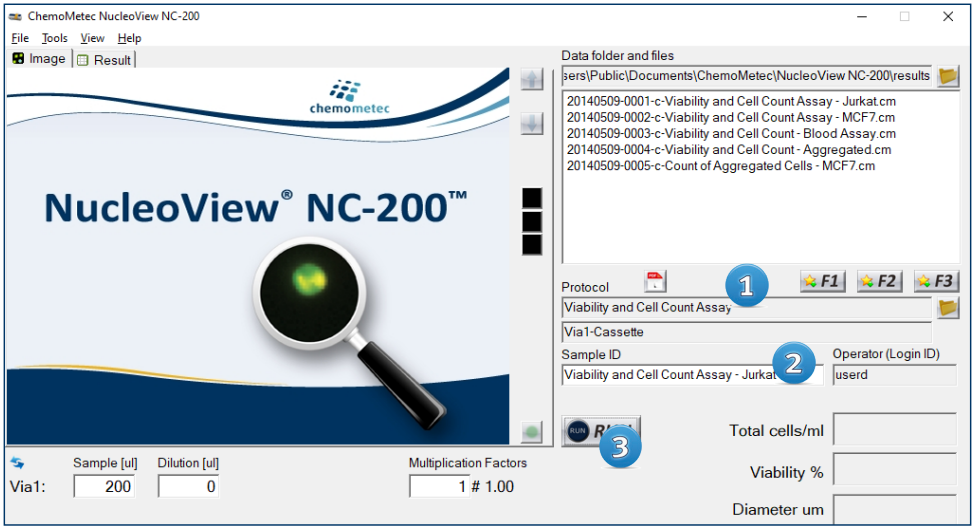
How to Perform the One-step Viability and Cell Count Analysis

Easiest cell count ever!

The NucleoCounter® NC-200™ from ChemoMetec is a significant step forward for automated cell counting.

- ✓ No need to add buffers or dyes
- ✓ No need to calibrate
- ✓ Just prepare your cell suspension, load the disposable Via1-Cassette™, and press 'RUN'

1. Select protocol from the menu: **'Viability and Cell Count Assay'.**
2. Optional: Enter Sample ID and Operator Name.
3. Load the sample into a Via1-Cassette™ and Press 'RUN'.



How to Perform Total Cell Count and Viability of Aggregated Cells

1. Select the protocol from the menu **'Viability and Cell Count - Aggregated Cells Assay'.**

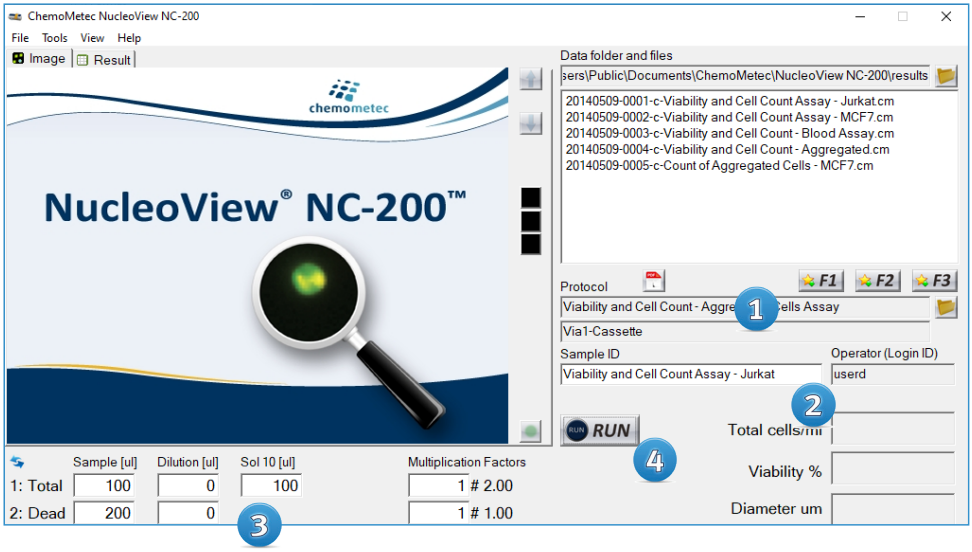
2. Optional: Enter Sample ID and Operator Name.

3. Add equal volumes of **Solution 10** and your cell sample to a microcentrifuge tube and mix. Retain an aliquot of at least 200 µL cell suspension without **Solution 10** for analysis in step five.

4. Immediately load your sample into a Via1-Cassette™ and press 'RUN'.

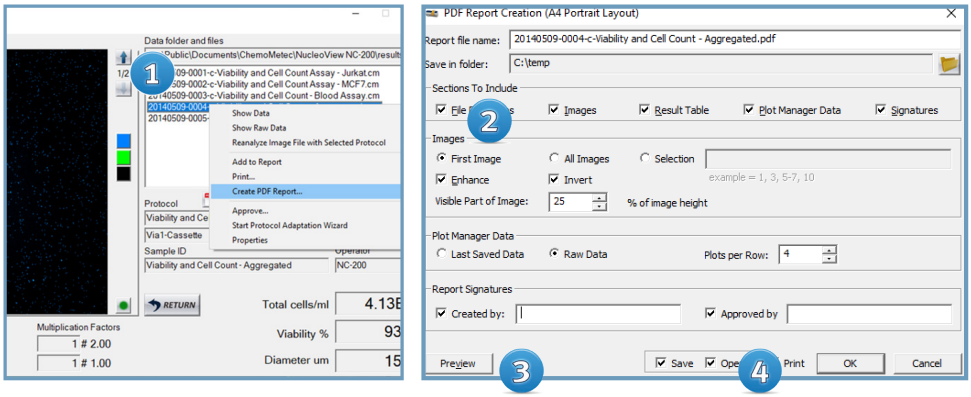
5. After analysis, follow the on-screen prompt and load a sample of your cells **NOT** treated with **Solution 10** into a new Via1-Cassette™ and press 'RUN'.

⚠ The compensation for the sample dilution with **Solution 10** is automatically performed by the software. However, if the proportions are different from those above, please add the correct volumes in the input fields under the image window prior to running your assay. The entered volumes are used for calculating the cell concentration in the original cell sample.



PDF reports

1 Right-click on file to create a PDF report.

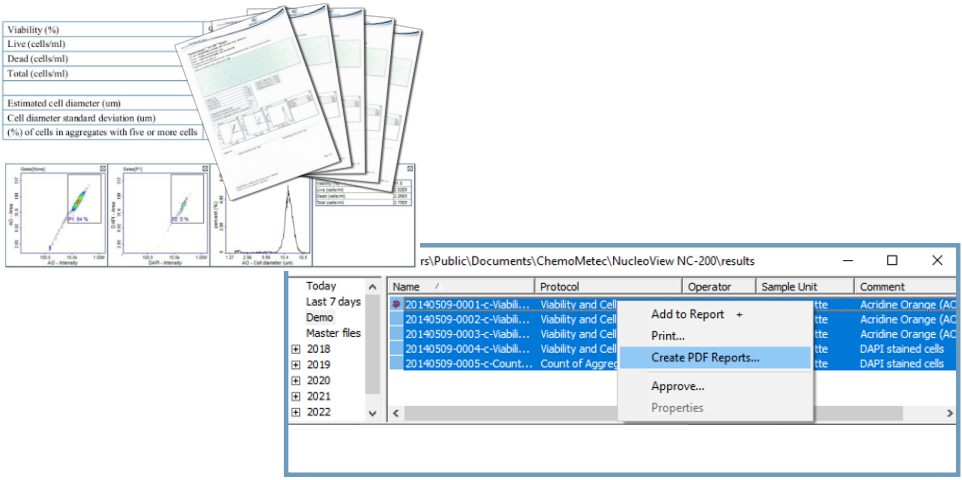


2 Select the parameters that will be visible on the report, and the properties of the parameters.

3 Optional: Preview your result.

4 Save and/or print your report to the default printer.

Tip: Batch exports can be done from the NucleoView™ File Browser.

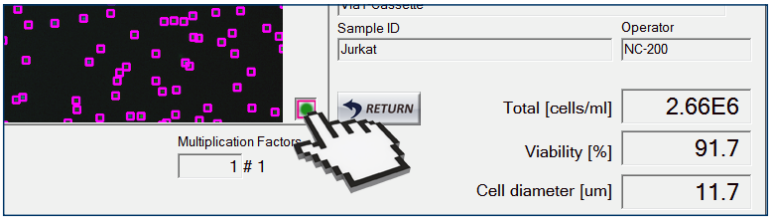


Optional: Visual Inspection of Counting Gates

Option One (Preferred)

Click the green dot in the right-hand corner of the image window.

This activates the image overlay function indicating all the events in the total cell count. The mouse scroll button allows the user to zoom in at the cursor position. Cells will be framed by a pink square.



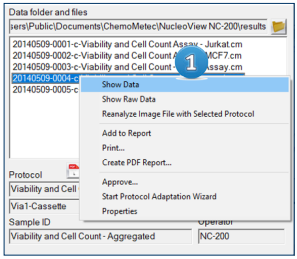
Option Two (Advanced)

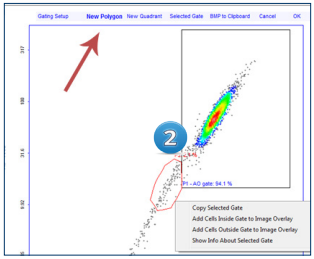
1. Right-click on the sample file name in the 'Data folders and files' window and select 'Show Raw Data'. A new window will open displaying scatter plots and histograms of event intensity and area for the appropriate channels (Acridine Orange and DAPI). It is important that the center of the population, most usually seen as a colored region on the scatter plot, is included in the counting gate.

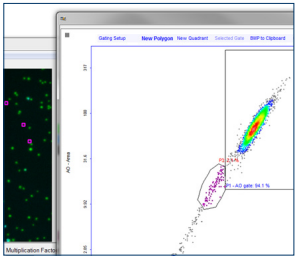
2. To check distinct cell populations, create a new polygon around the particular cell population.

3. Right-click inside of the newly formed polygon and select 'Add Cells Inside Gate to Image Overlay'. This activates the image overlay function indicating all the events visually to determine the validity of their inclusion or exclusion from the final counting result.

   Delete the polygon and the image overlay by right-clicking and selecting 'Delete Image Overlay'.



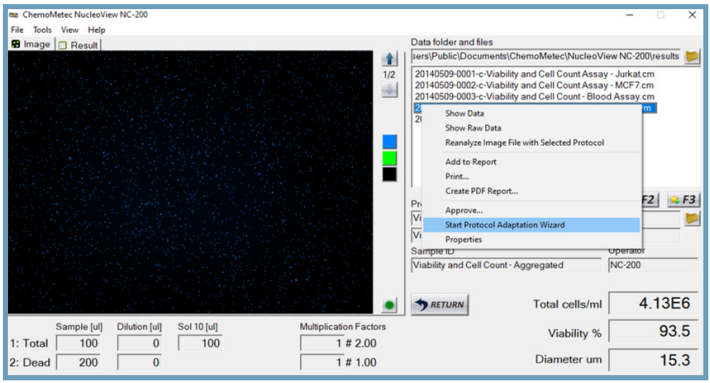




Only if required:

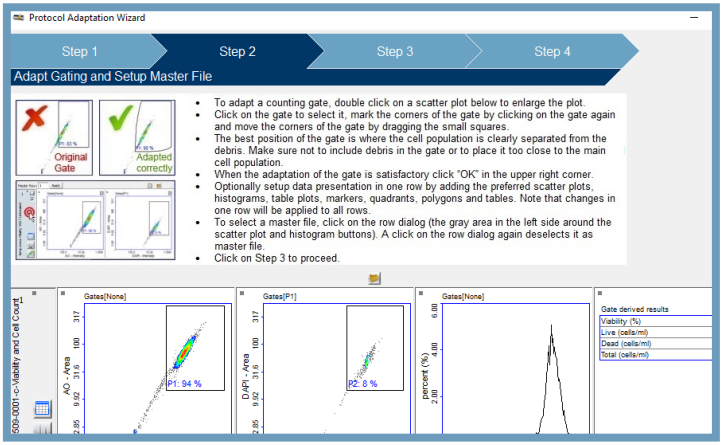
Create your own protocol with adjusted counting gates

1. Perform the desired type of assay on a sample of the cells to be analyzed.
In the Tools menu select Protocol Adaptation Wizard or right-click on the desired file and select '**Start Protocol Adaption Wizard**'.



Follow the instructions in the **Protocol Adaptation Wizard** to create your own adapted protocol.

⚠ The viability and cell count results will not be adjusted for the image file used for the adaption of counting gates. New results can only be obtained by running a new sample with the new gating protocol.

2. 

Additional Resources

Go to **www.chemometec.com** to find:

- Documentation
- Safety Data Sheet
- Application notes
- Certificates of analysis
- Videos etc.

Consumables:

Item no.	Description
941-0012	Via1-Cassettes™, 1 box (100 pcs)
910-3010	Solution 10
910-3017	Solution 17
910-0003	Reagent A100 - Lysis Buffer, 500 ml
910-0002	Reagent B - Stabilizing Buffer, 500 ml
929-0012	Laptop Stand II for NC-200™ series

991-0205A ver. 02

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