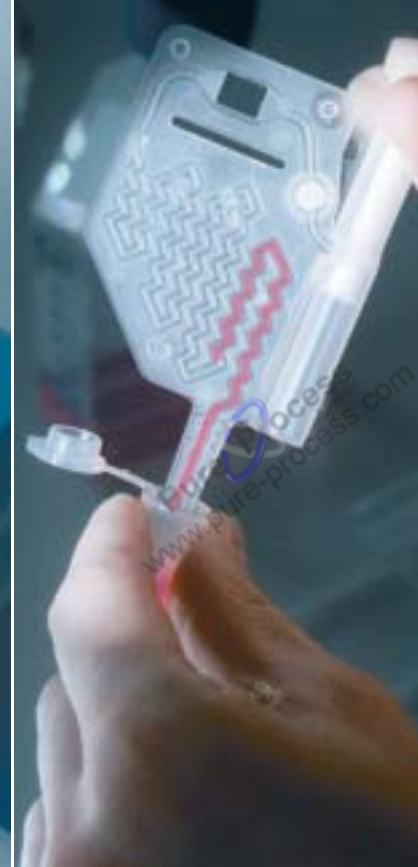




**New Brunswick Scientific**  
*Where Quality and Innovation Have Become Tradition*

**NucleoCounter<sup>®</sup>**  
**Automated Cell Counting System**  
*Now for Mammalian Cells or Yeast*



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# Accurate mammalian or yeast cell counts in under a minute!

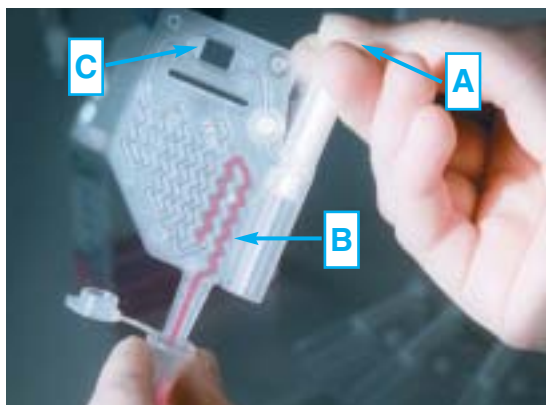
## Do You Hate Your Hemacytometer? Introducing the NucleoCounter®!

**Unique automated cell counting devices for mammalian or yeast cultures. Both are fast, accurate, easy to use, and maintenance- and calibration-free!**

### Precision Counts, Made Easy!

The **NucleoCounter** uses the same basic principles to determine cell concentration as used in conventional methodology involving a hemacytometer and microscope. However, the NucleoCounter adds the precision and reliability of fluorescence microscopy technology to automate this time-consuming task, eliminating manual evaluation and errors caused by operator subjectivity.

The NucleoCounter system uses a disposable sampling device, the **NucleoCassette™**. This small, plastic cartridge is internally pre-coated with a fluorescent dye, propidium iodide (PI), which stains the cells' nuclei. Because the NucleoCounter detects signals from the stained nuclei, and not the cell, the system operates without regard to cell size or morphology. It is therefore capable of easily counting a variety of mammalian culture types including CHO, hybridomas and adipocytes, as well as yeast cultures, without requiring calibration. Aggregate cultures pose no problem, as there is no need for the cell's outer membrane to be intact.



*NucleoCassette, described at right.*



### The NucleoCounter system consists of:

- **A NucleoCounter**  
with highly-advanced fluorescence microscope, charged-coupled device (CCD) camera, and hardware-based image analysis. Choose the NucleoCounter for mammalian cells or NucleoCounter YC-100 for yeast
- **Disposable NucleoCassettes**  
with piston (A) to aspirate a pre-defined volume of your sample into the cassette; (B) nuclei-staining dye; and (C) window where sample will be read by the NucleoCounter
- **Reagents**  
for cell lysis and stabilization
- **Optional NucleoView™ PC software**  
for documentation, image viewing and data processing



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## Simple as 1 - 2 - 3

It's as easy as that!

1



*Pre-treat your sample with reagent(s). The lysis and stabilization buffers dissolve cell aggregates and lyse cell membranes.*

2



*Load the **NucleoCassette** with your pre-treated sample, place in **NucleoCounter** and press "Run". This will produce a total cell count in about 30 seconds.*

*To determine cell viability, simply run a NucleoCassette with untreated sample. This will count non-viable cells. Cell viability can be determined from these two measurements.*

3



*Or, let **NucleoView** PC software automatically compensate for dilution and calculate cell viability. This advanced software also allows you to view the sample image, and record data to your PC for report writing.*

## Clean up is simple too!

*After use, the NucleoCassette can be disposed of as biological waste, with the PI dye safely enclosed. Unlike flow systems and hemacytometers, the system requires no cleaning.*

## Technical Specifications

	Mammalian Cell Counting	Yeast Cell Counting
<b>Applications</b>	The NucleoCounter counts cell nuclei, stained with the DNA-specific fluorescent dye propidium iodide (PI). Recommended for use in pharmaceutical/biotechnology research & production facilities.	
<b>Loading Volume</b>	100 µL is recommended to ensure a representative sample Approximately 50 µL is loaded into the cassette	
<b>Analysis Volume</b>	Approximately 2 µL of the sample loaded into the cassette is analyzed in the NucleoCassette chamber	
<b>Analysis Time</b>	After pressing "Run", the result will be displayed in about 30 seconds	
<b>Measurement Range</b>	5 x 10 <sup>3</sup> to 4 x 10 <sup>6</sup> cells/mL lysate	5 x 10 <sup>3</sup> to 2 x 10 <sup>6</sup> cells/mL lysate
<b>Optimal Range</b>	1 x 10 <sup>5</sup> to 2 x 10 <sup>6</sup> cells/mL lysate	1 x 10 <sup>4</sup> to 2 x 10 <sup>6</sup> cells/mL lysate
<b>Operation</b>	Menu-controlled by means of keyboard and LCD display	
<b>Dimensions</b>	15" L x 8.7" D x 10.2" H	
<b>Weight</b>	6.6 lbs	
<b>Power Requirements</b>	Input: 120 V, 50/60 Hz	120 V, 50/60 Hz
<b>Power Consumption</b>	Peak: 25 Watt Ready mode: 10 Watt Standby: 2.5 mWatt	25 Watt 2.5 Watt 2.5 mWatt
<b>Operation Conditions</b>	For Indoor use	
<b>Temperature</b>	15° - 35°C (59° - 95° F)	
<b>Relative Humidity</b>	Maximum 80% RH at ≤ 31°C, decreasing linearly to 65% at 35°C	
<b>The NucleoCassette™ Reagent</b>	Approximately 2.8 µg propidium iodide	
<b>Storage</b>	Best stored in a sealed bag at maximum 30°C (86°F).	
<b>Stability</b>	Stable for 12 months	
<b>NucleoView™ Software</b>	Requires Windows 2000 operating system, Windows-compatible computer & 1.1 USB port	
<b>Ordering Information</b>		
<b>NucleoCounter</b>	Catalog No. M1293-0000	Catalog No. M1293-1000
<b>NucleoCassettes</b>	Catalog No. M1293-0100. Sold in quantities of 100 cassettes (10/bag)	
<b>NucleoView Software</b>	Catalog No. P0540-5440	
<b>Starter Kit, Mammalian Cell Counting Only</b>	Catalog No. M1293-0020 One bottle each lysis and stabilization buffer, each lysis and stabilization buffer, 2 dispensing pumps, reagent holder, 100 NucleoCassettes and NucleoView software	
<b>Reagent YC-100</b>	Catalog No. P0820-5185 - for yeast cell counting only	

NucleoCounter®, NucleoCassette™ and NucleoView™ are trademarks of ChemoMetec A/S, Denmark. The information contained herein is to the best of our knowledge accurate and complete. However cell species and cell environments may vary in property. Therefore systematic and/or random deviation between estimates obtained by the NucleoCounter and other cell counting methods may occur. As such, nothing contained or stated herein, including results obtained from use of the NucleoCounter or NucleoCassette, shall be construed to imply any warranty or guarantee. New Brunswick Scientific (NBS) and affiliated companies shall not be held liable for damages, and customers shall indemnify NBS and affiliated companies against liability flowing from use of potentially inaccurate data generated by the NucleoCounter. It is recommended that all results obtained with the NucleoCounter be validated against appropriate reference methods and/or traditional laboratory methods at regular intervals.



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