

Cellometer Selection Guide

Which Cellometer is Right for Me?

Cellometer®
Simply Counted



Features	Automated Cell Counters				Image Cytometers				
	Mini	Auto T4	Auto 1000	Auto 2000	X1	X2	K2	Vision CBA	Vision CBA (10x)
Cell / Sample Type									
Objective Magnification	4X	4X	4X	4X	10X	10X	4X	5X	10X
Cell Line	•	•	•	•			•	•	
Cultured Primary Cells	•	•	•	•			•	•	
Algae									•
Platelets						•			•
Low Concentration Cell Lines				•			•	•	
Yeast (Clean Sample)					•	•			•
Primary cells (Messy Sample*)				•			•	•	
PBMCs, Splenocytes, Stem Cells				•			•	•	
Yeast (Messy Sample)						•			•
Hepatocytes							•	•	
Adipocytes***				•			•	•	
Cell-Based Assay **					•	•	•	•	•
Apoptosis (Annexin V-FITC/PI)							•	•	•
Apoptosis (Caspase Activity)							•	•	•
Autophagy (CytolD-green)								•	•
Cell Proliferation (CFSE)								•	•
Cell Cycle (PI)					•	•	•	•	•
GFP Transfection				•		•	•	•	•
RFP Transfection								•	•
Mitochondrial Potential (JC-1)								•	•
Multi-drug Resistance (ABC Transporter)								•	•
Surface Marker Analysis								•	•
Vitality (Calcein-AM/PI)						•	•	•	•
Image Cytometry**								•	•

* A messy sample is a heterogeneous sample containing unwanted cell types, such as red blood cells, in addition to the cells of interest.
** FCS Express license must be purchased in order to perform Cell Based Assay or Image Cytometry analysis
*** Cellometer CHT4-PD300 slides are required for cells greater than 80µm in diameter

ThermoFisher
SCIENTIFIC

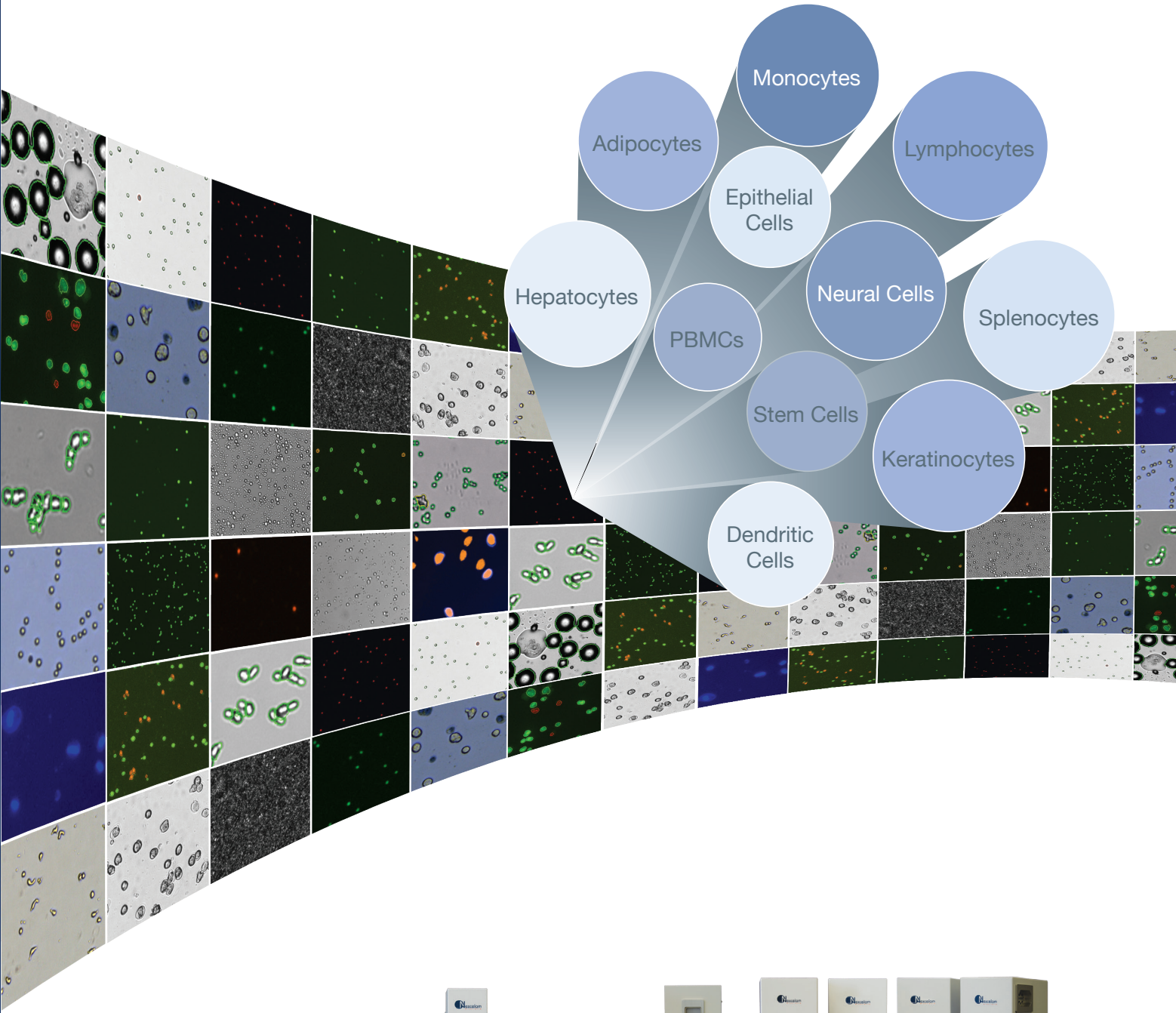
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Cellometer® Cell Counters & Cell Analysis Systems
Simply Counted



Innovation and Expertise in the Science of Cell Counting


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Simply Counted.

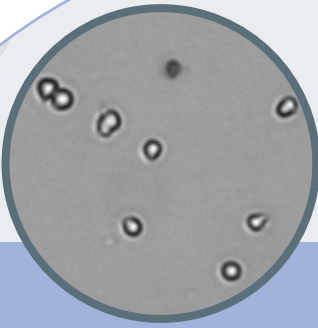
Which Cellometer is Right for Your Research?

Move beyond cell counting to detailed cell analysis.



Bright Field Cell Counters

- Mini** - The most affordable option for accurate, automated cell counting and trypan blue viability
- Auto T4** - Automated concentration and trypan blue viability of cell lines ... even clumpy cells
- Auto 1000** - All-in-one, touch-screen instrument for accurate, automated trypan blue viability



Cell Viability Counter

- Auto 2000** - Viability of primary cells in complex samples containing debris and red blood cells
 - PBMCs
 - Stem Cells
 - Trypan Blue Viability - Cell Lines
 - Splenocytes
 - & Other Primary Cells


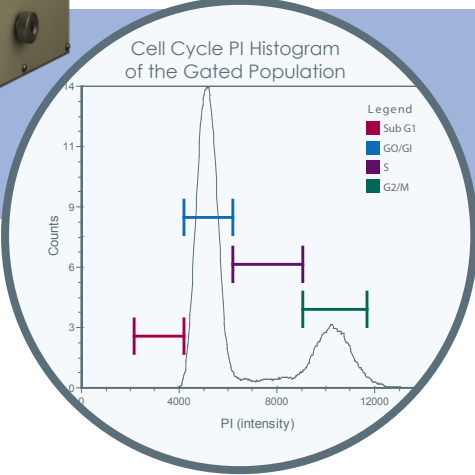


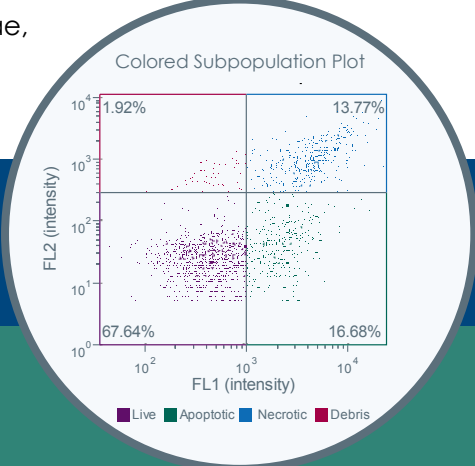
Image Cytometers

- X1 / X2** - Optimized for brewing yeast, wine yeast, platelets and other small cells
- K2** - Cell counting and analysis for hepatocytes, stem cells, splenocytes, tumor suspension and other primary cells
- Vision CBA** - Advanced imaging for algae, hepatocyte, adipocyte and complex yeast analysis. Simple, 20µl cell-based assays with flow-like data output



Cell Cycle PI Histogram of the Gated Population

Legend: Sub G1, G0/G1, S, G2/M



Colored Subpopulation Plot

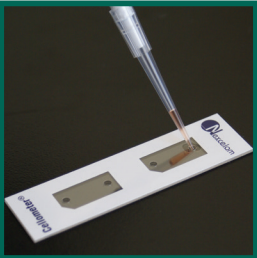
FL2 (intensity) vs FL1 (intensity)

Legend: Live, Apoptotic, Necrotic, Debris

Percentages: 1.92%, 13.77%, 67.64%, 16.68%

➔ Seeing is Believing

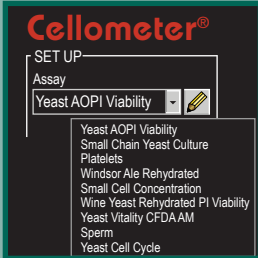
How it Works



Pipette 20 µl of Cell Sample



Insert Counting Chamber



Select Assay & Click Count

Assay: Yeast AOPI Viability	
Cell Type F1: Yeast AOPI Viability FL1	
Cell Type F2: Yeast AOPI Viability FL2	
Sample ID: Yeast AOPI Viability-2	
Dilution: 4.00	
Count	Concentration
Total: 1148	5.00x10 ⁷ cells/mL
Live: 928	4.05x10 ⁷ cells/mL
Dead: 220	9.50x10 ⁶ cells/mL
Mean Diameter	
3.8 micron	Viability: 81.0%
4.0 microns	
2.6 micron	

Get Results

Sample Adjustment

Measured Concentration (cells/ml)

1.15e+006

Original Sample Volume (ml)

10.0

Total Cell Number in Sample

1.15e+007

☒ Target Concentration (cells/ml)

1.00e+006

☐ Target Number of Cells

2000

Apply Change

Sample Adjustment

Add diluent amount: 1.49 ml.

Print

☐ Print with report

Done

Sample Adjustment Calculator to determine sample volume for desired cell number / concentration.

➔ About Nexcelom

Innovative Products :Nexcelom Bioscience LLC began in 2003 with the CP2 to assist with manual cell counting. Since then, Nexcelom has expanded our product range to accommodate researchers analyzing small cells, primary cells and researchers looking to perform cell-based assays.

Proven Performance: From breweries performing yeast fermentation monitoring to specialized pharmaceutical labs analyzing hepatocytes for toxicology studies, researchers in a wide range of industries have integrated Cellometer instruments into their laboratory testing.

Continued Growth and Innovation: Nexcelom will continue to develop novel products, including enhanced instrumentation and specialized reagents, to meet emerging customer needs.