

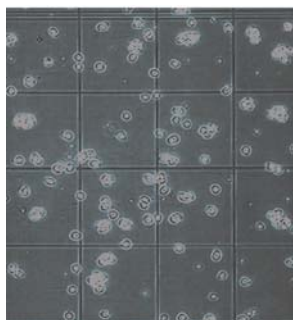
Cellometer™ Technical Data

Comparison of Counting Protocols

Step	Cellometer™	Hemocytometer
1	Mix cell suspension	Mix cell suspension
2	Pipette 15 to 20 µl into sample port	Carefully load with 10 µl solution
3	Count cells in multiple (N) squares* (C_total)	Count cells in multiple (N) squares* (C_total)
4	Cell Concentration = Dilution x (C_total / N)	Cell Concentration = Dilution x (C_total / N)
5	Dispose used Cellometer	Wash, dry cover slide and base

* Use Square A for large cells and Square B for smaller cells.

Experiment A: Count mammalian cells



- Cell type: human T lymphocyte
- Counting devices: Cellometer™ with glass base (CG2), all plastic Cellometer™ (CP2) and a standard bright line Hemocytometer.
- Cell counting performed alternating between Cellometer™ and Hemocytometer.
- Statistical data analysis using two-sample T test.

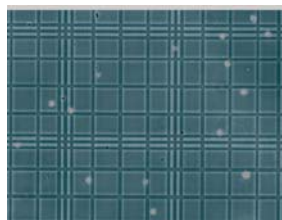
Image of Cellometer™ loaded with cells under phase contrast settings

Results:

	CP2-test1	CP2-test2	CG2
# of test (Cellometer™)	15	19	17
# of test (Hemocytometer)	8	17	
Mean (Cellometer™)	1.78×10^5	1.83×10^5	
Mean (Hemocytometer)	1.85×10^5	1.82×10^5	1.80×10^5
p-value	0.325	0.908	0.505

* All P-values are larger than 0.05, indicate there is no difference in cell concentration measured by Cellometer™ or hemocytometer.

Experiment B: Count algae cells



- Cell type: green algae
- Counting devices: all plastic Cellometer™ (CP2) and a standard bright line Hemocytometer from Fisher Scientific.
- Statistical data analysis using two-sample T test.

Results:

	# of test	Mean count	Stdev count	Concentration
Cellometer™	5	53.8	11.1	5.4×10^5
Hemocytometer	5	49.2	4.38	4.9×10^5

* P-value of the two-sample T test is 0.43, which is larger than 0.05, indicating there is no difference in algae concentration measured by Cellometer™ or Hemocytometer.