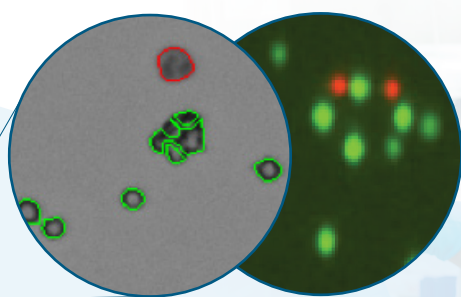




## High-throughput Automated Cell Counter



From cell line development to cell expansion to protein production within a bioreactor, fast and accurate cell viability and concentration measurements are critical throughout the entire process. Automation with exceptional reproducibility, and fast results with a small sample size, is a high priority for these demanding workflows.

With the new Cellaca MX Automated Cell Counter you can now count up to 24 samples in 48 seconds using trypan blue exclusion.

Your workflow will be streamlined and more efficient when you integrate the Cellaca MX with these capabilities:

- Batch samples in 24 well microplates with results in 48 seconds
- Maintain cell integrity and minimize sample depletion during processing
- Incorporate robotics with API compatible instrument
- Small footprint to save precious bench space



## SAVE TIME - REIMAGINE YOUR WORKFLOW

The Cellaca MX configured for brightfield cell counting significantly reduces processing time in high-throughput environments where efficiency is key. The ability to add additional automation with robotic integration can further increase productivity.



## TIME COMPARISON

	Number of Samples	Amount of Time
Cellaca MX	24	48 seconds
	480	30 minutes
Cell Counter V	12	36 minutes
	480	24 hours

## ACCURATE COUNTS - EVEN WITH CLUMPY CELLS

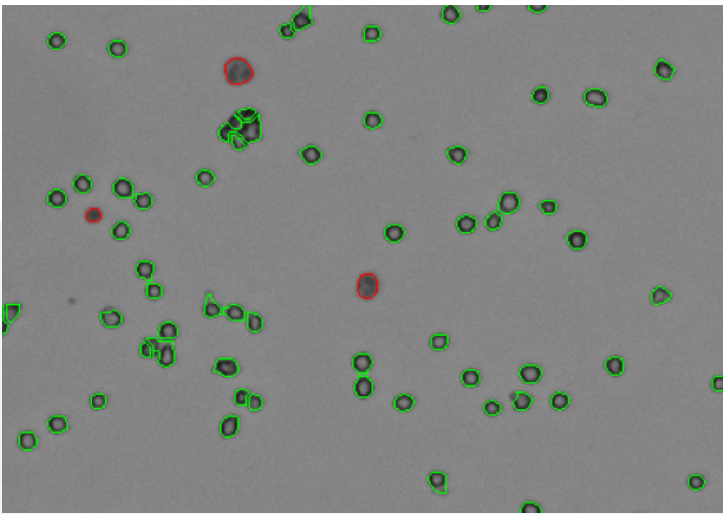
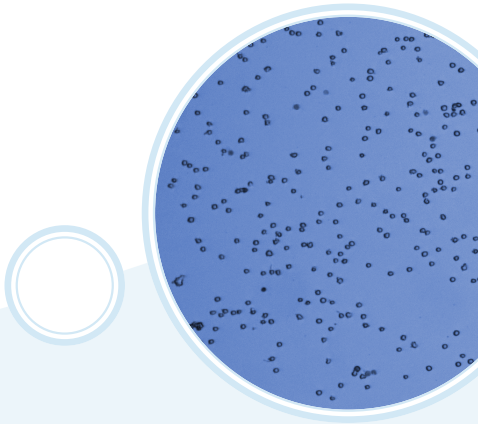


Figure 1. The above image shows cells counted with Trypan Blue on the Cellaca MX. The software automatically declusters and counts individual live cells (in green outlines) and trypan blue positive dead cells (in red).



## MINIMIZE SAMPLE DEPLETION DURING PROCESSING

The Cellaca MX only requires a 25  $\mu$ L cell sample to mix with trypan blue. The low sample size makes it possible to readily analyze precious bioprocessing or cell line development samples, and enables the same sample source to be used for additional downstream analysis.

## HIGH ACCURACY AT FAST SPEEDS

Cellaca's ability to consistently image, decluster, and report cell viability and concentration make it a versatile instrument during every stage of cell line development. Multiple users over four independent experiments were able to yield sample to sample variability for trypan blue stained CHO cells of less than 7% CV with a total of 1,992 samples counted (Figure 2). Cellaca's high speed imaging and data reporting allowed the researchers to complete 83 plates in under 70 minutes.

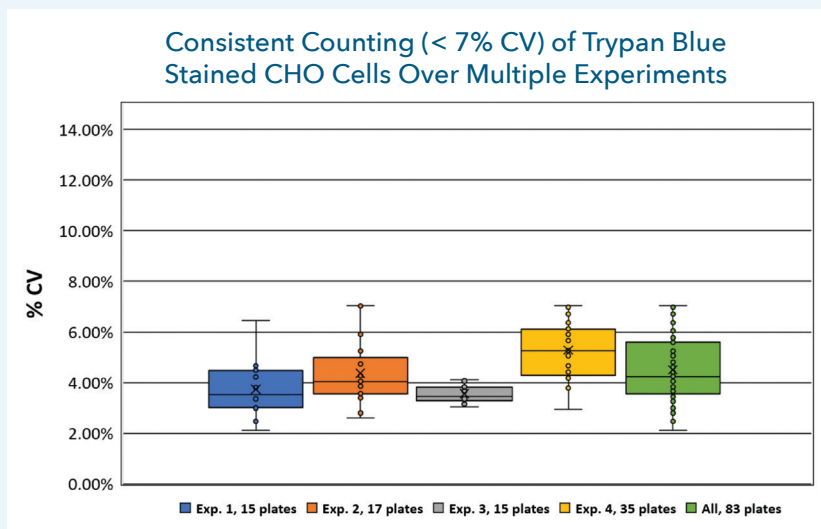
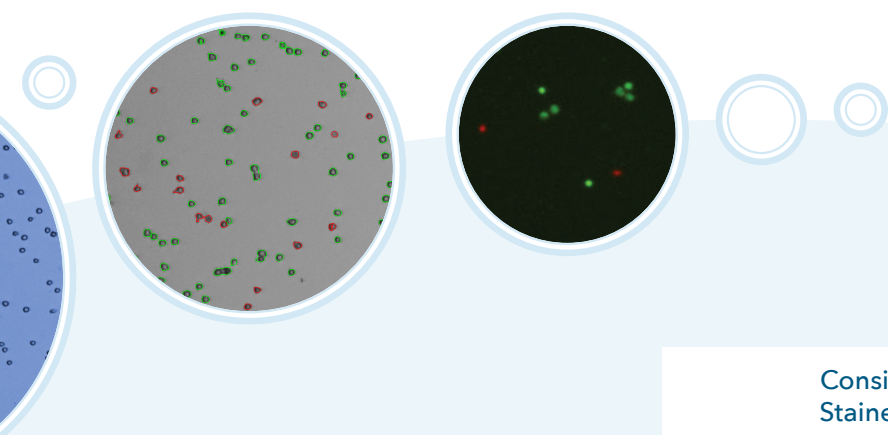


Figure 2. CHO cells stained with Trypan Blue were shown to have a CV of 7% or less over 4 independent experiments totaling 83, 24-well plates.

The Cellaca MX is available in different configurations. Each is field upgradeable to allow your instrument to configure to your experimental needs and quickly drive to deeper cellular insights.

	Cellaca MX BF	Cellaca MX FL2	Cellaca MX FL5
Channels	Brightfield	Brightfield, Green, Red	Brightfield, Blue, Green, Red, Far Red
Number of Channels	1	4	14
Excitation LED	N/A	470, 527 nm	365, 470, 527 and 620 nm
Emissions Filters	N/A	534, 655 nm	452, 534, 605, 655 and 692 nm
Commonly Used Compatible Dyes	Trypan Blue	Trypan Blue, AO/PI	Trypan Blue, AO/PI, Hoechst, DAPI, PE, APC, FITC, CFDA, Calcein AM, 7AAD
Counting Speed Per 24 Samples	48 seconds	2.5 minutes	2.5 minutes
Volume (per well)	25 µL - 100 µL sample volume 50 µL - 200 µL total well volume	25 µL - 100 µL sample volume 50 µL - 200 µL total well volume	25 µL - 100 µL sample volume 50 µL - 200 µL total well volume
Size/Diameter Range	5 - 80 µm	5 - 80 µm	5 - 80 µm
Concentration Range	1x10 <sup>5</sup> - 1x10 <sup>7</sup>	1x10 <sup>5</sup> - 1x10 <sup>7</sup>	1x10 <sup>5</sup> - 1x10 <sup>7</sup>
Fluorescence Upgradeable	Yes	Yes (add colors)	N/A
Robotic Compatible	Yes	Yes	Yes
Dimensions	13 in x 13 in x 16 in (33 cm x 33 cm x 41 cm)	13 in x 13 in x 16 in (33 cm x 33 cm x 41 cm)	13 in x 13 in x 16 in (33 cm x 33 cm x 41 cm)
Weight	40 lbs (18 kg)	42 lbs (19 kg)	42 lbs (19 kg)

## Innovation and Expertise in the Science of Cell Counting

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