ACCURATE, FAST & READY TO INTEGRATE

NucleoCounter® NC-203™

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- Fast analysis time: ~30 sec/sample
- Low sample volume: 60 µL
- Wide counting range: 5×10^4 – 1×10^7 cells/mL
- Easy to use: load sample, press RUN, and collect data

21 CFR PART 11 READY

4th generation NucleoCounter®

The NucleoCounter® NC-203™ is our 4th-generation cassette-based cell analyzer for cell counting and viability analysis.

The new NC-203™ builds on the robust performance of the NC-202™ instrument, with the same minimalistic, user-friendly design loved by cell and gene therapy customers worldwide.

The NC-203™ combines brightfield and fluorescence imaging for optimal result accuracy and cell counting performance. The added brightfield channel improves cell diameter determination and debris separation.

Finally, the NC-203™ software supports integration with data management systems, simplifying system integration.

Read more about the NC-203™ on our website

NC-100™

NC-200™

NC-202™

NC-203™

Precise Routine Process – Better Decisions

The NC-203™ is a standardized decision tool for cell therapy and bioprocessing workflows where consistency, traceability, and confidence determine success.

By providing reliable results, the NC-203™ supports drug development through streamlined operations and compliance, while reducing regulatory risks from R&D to Manufacturing.

Intra-sample variation:	Instrument-to-instrument variation:
<3%	<5%

Simplified Workflow

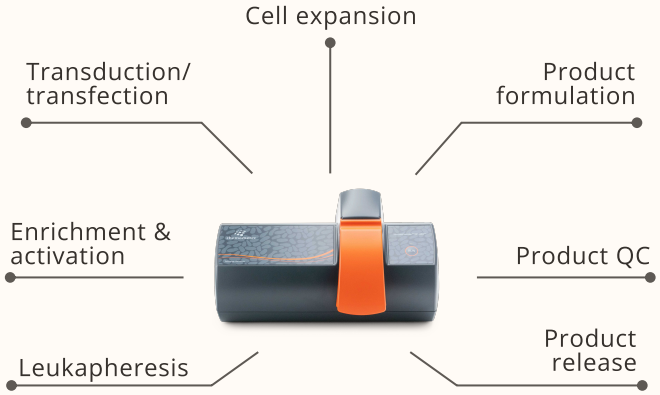
Just insert the loaded cassette and press RUN to get result in 30 seconds.

- ✓ No complex calibration
- ✓ No parameter adjustments
- ✓ No toxic liquid waste
- ✓ Minimal cleaning

Trust Your Measurements of Complex Samples

The NC-203™ eliminates uncertainties when counting complex samples, which contain mixed cell populations, non-nucleated cells, or debris.

The optical system integrates brightfield and fluorescence imaging with advanced image analysis and cell-specific staining. This design ensures consistent results across all process stages, cell treatments, and culture conditions.

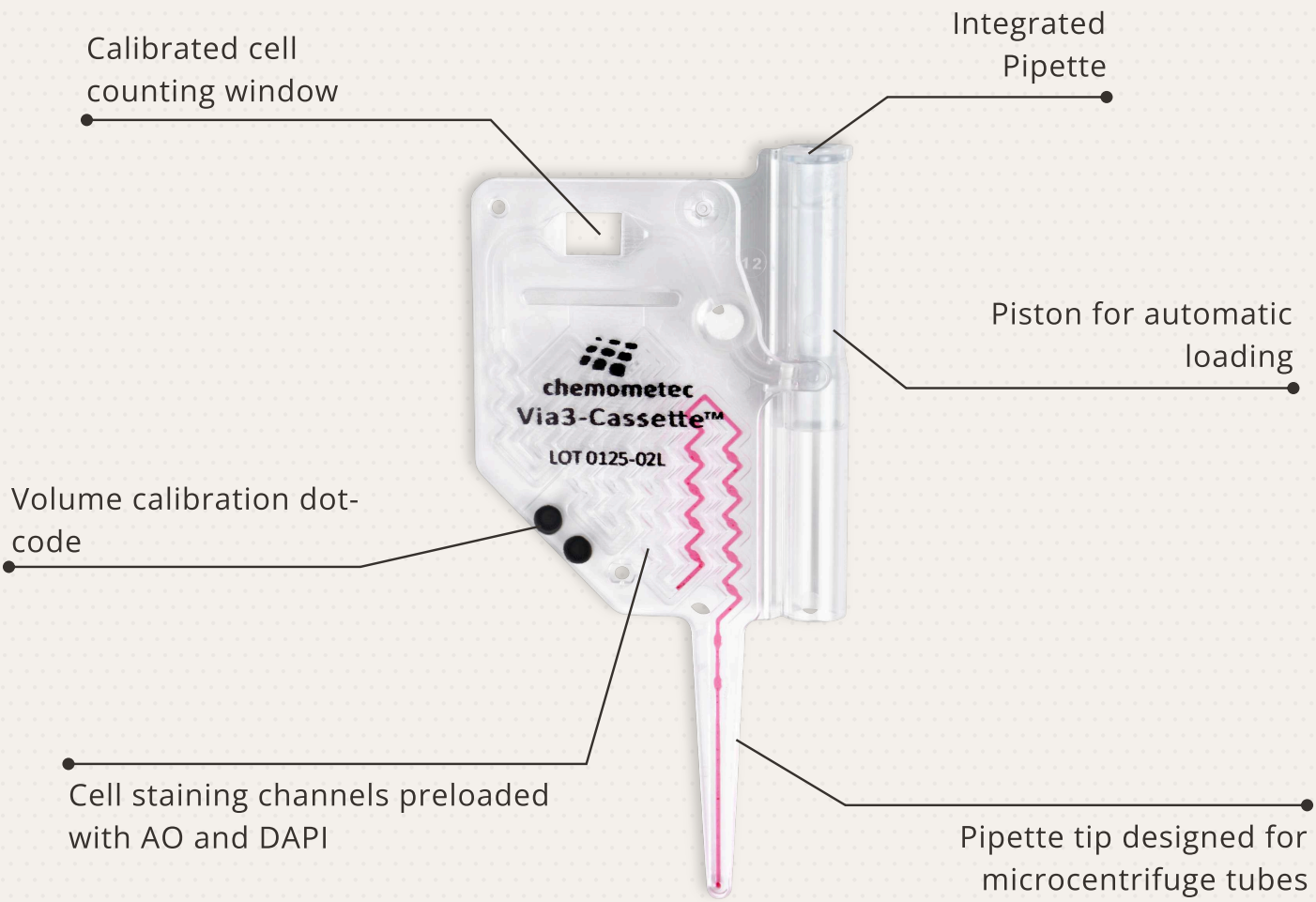


Monitor Culture Health and Composition

The NC-203™ also delivers a debris count, which offers an additional layer of insight into bioreactor culture health and composition.

Moreover, the NC-203™ is capable of quantifying Red Blood Cells (RBCs) in mixed populations containing nucleated cells.

Via3-Cassette™



Trusted Cassette Technology

Used with the NC-203™, the Via3-Cassette™ eliminates manual sample handling, which is the largest source of errors in cell counting.

The built-in pipette draws the sample directly from the microtube. As the sample moves toward the counting chamber, pre-loaded fluorescent dyes are uniformly mixed with cells.

Each cassette is individually volume-calibrated. The actual volume is recorded in the dot-code, which is read by the instrument during the analysis.

Combined with the NC-203™'s fixed-focus design, the Via3-Cassette™ standardizes cell counting results across operators.

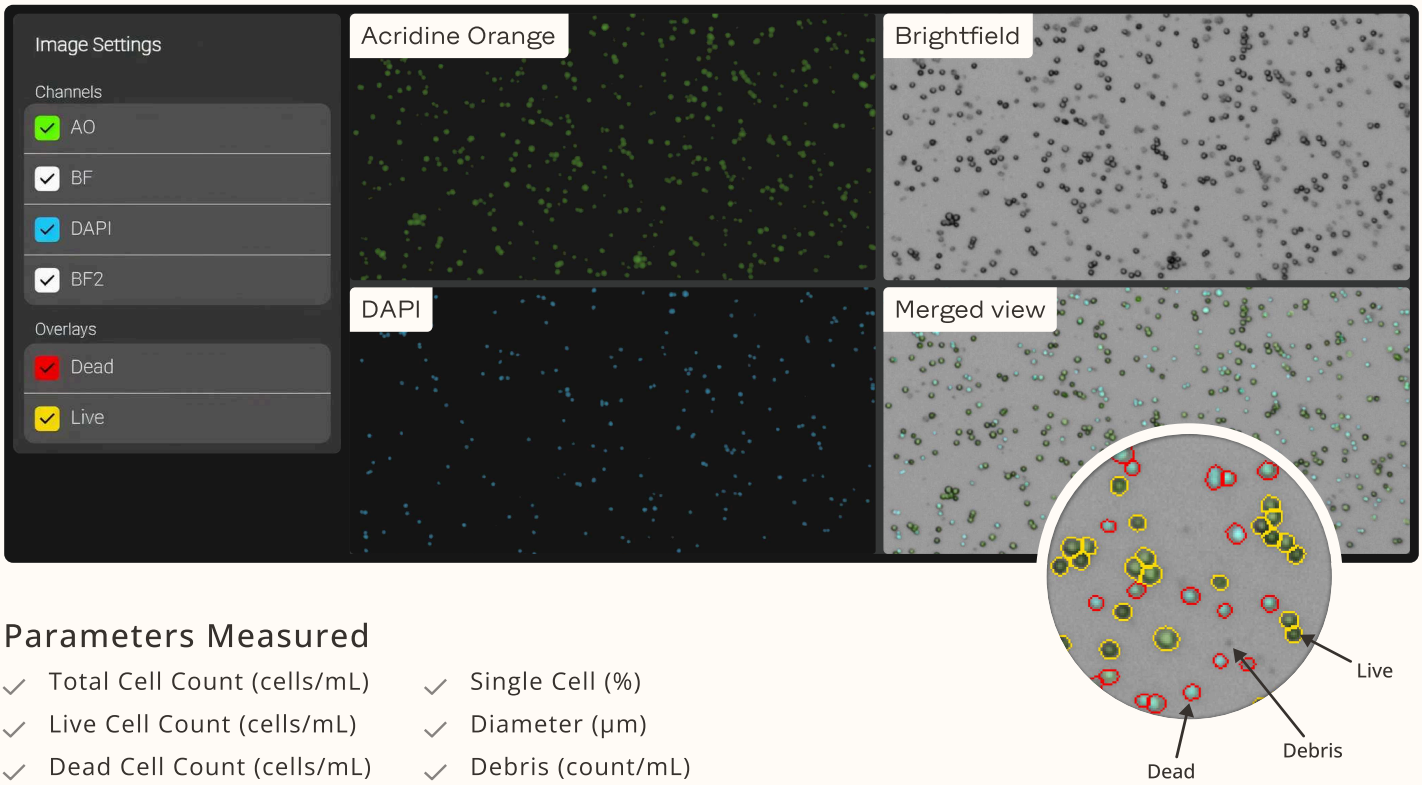
Samples remain contained in the cassette all the time. This makes NC-203™ perfect for operations inside the cleanroom and minimizes operator exposure to toxic reagents.

XM-View™: Streamlined Data Acquisition and Management

The real power of the NC-203™ comes with XM-View™, an intuitive software platform that combines ease of use with deep-learning algorithms for unmatched robustness.

No focus adjustments or cell-specific settings are required — simply load the sample and obtain results.

Operators can review high-quality images across channels and apply overlays to clearly distinguish between live and dead cells.



Parameters Measured

- ✓ Total Cell Count (cells/mL)
- ✓ Live Cell Count (cells/mL)
- ✓ Dead Cell Count (cells/mL)
- ✓ Viability (%)
- ✓ Single Cell (%)
- ✓ Diameter (µm)
- ✓ Debris (count/mL)
- ✓ Red Blood Cells (RBC)

API Integration

XM-View™ allows API-integration for improved and seamless transfer of cell counting results into the local data-management systems.

No need for manual backups and data handling procedures, XM-View™ secures traceability and result sharing across teams.

Unified Cell Counting Platform

As drug development progresses, requirements for cell counting evolve.

The NC-203™ is designed to align with the XcytoMatic® Platform, enabling a smooth transition from single measurements to high-throughput operation and full automation.

21 CFR Part 11 Compatible Software

The XM-View™ software is compatible with 21 CFR Part 11 requirements with detailed audit trail and access restricted operations. It is ready to be integrated into any GMP setup.

Service Plan

Ensure peace of mind with an annual service plan and extended warranty coverage. This comprehensive package also provides priority access to ChemoMetec specialists, yearly on-site qualifications and valuable training sessions for GMP personnel.

Specifications

MODEL

Instrument	NucleoCounter® NC-203™
Product Number	900-0203

DIMENSIONS

Width	40 cm (15.7”)
Height	23 cm (9”)
Depth	25 cm (9.8”)

WEIGHT

4.9 kg (10.8 lbs)

SUPPLY VOLTAGE

24 VDC (100–240 V~ 50–60 Hz)

POWER CONSUMPTION

Ready mode	7 W
Peak	20 W

SOFTWARE

XM-View™ Software

CONSUMABLE(S)

Via3-Cassette™

APPLICATION

PBMCs, stem cells, production cell lines, primary cells, cancer cell lines

PERFORMANCE

Counting range	5×10^4 – 1×10^7 cells/mL
Variation	Sample-to-sample: <3% Instrument-to-instrument: <5%
Analysis time	30 seconds
Analysis volume	1.35 µL (individually volume-calibrated Via3-Cassette™)
Loading volume	60 µL

OPTICAL & FLUORESCENCE

Optics	Lens with ×2.1 magnification, 2/3” CMOS
Excitation (nm)	3 LED light sources with peak wavelengths at 365 nm, 505 nm, 430 nm
Emission (nm)	A single dual-band emission filter: 410–460 nm and 540–650 nm

About us

Founded in Denmark in 1997, ChemoMetec is a global supplier of automated cell counting and analysis equipment. We are dedicated to developing and manufacturing highly precise analytical instruments, empowering the life science industry to achieve reproducible results.

Our core focus lies in producing innovative cell counting solutions like the Xcytomatic® and NucleoCounter® series. These instruments are recognized for their versatility and precision, making them ideal for applications ranging from process development, research and development, clinical- and commercial-grade manufacturing of
cell and gene therapies and other biopharmaceuticals, upstream bioprocessing and academic research in diverse therapy areas.

With headquarters in Allerod, Denmark and multiple US offices, ChemoMetec offers dedicated support through its team of field application scientists and field service engineers. Our support team ensures seamless adaptation, installation and service of our products so that our customers obtain quality results.

Beyond providing state-of-the-art cell counters, ChemoMetec strives to be a true partner in the advancement of biopharmaceutical research and development. We actively engage with innovation hubs and life science incubators, collaborating with emerging biotech to understand their unique needs and challenges. Our curiosity and commitment to reproducible scientific methods fuels our continuous innovation in cellular analysis. No matter the cell type, sample or user, our products provide consistent and reliable results.

Contact

www.chemometec.com
contact@chemometec.com

ChemoMetec A/S

Gydevang 43
3450 Allerod
Denmark
Phone: +45 48 13 10 20
CVR-nr. 19 82 81 31

ChemoMetec Inc.

29 Camp ST
Cambridge, MA 02140
United States
Phone: +1 631 676 4237
EIN No. 27-3548268

990-0265 ver. 1

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