



Cydem VT

Automated Clone Screening System

THE POWER OF ONE



The Cydem VT Automated Clone Screening System combines multiple trusted Beckman Coulter technologies into one advanced platform that empowers lab managers with a far more effective, high-throughput method for pool and top clone screening in cell line development—offering increased confidence that promising clones don't get overlooked in the process of consistently selecting the best.

- High-throughput clone and minipool screening in cell line development
- Automated, walk-away operation
- All results in one software
- pH-controlled fed-batch cultivation of 96 parallel cultures with individual gassing
- On-deck cell count, viability and antibody titer analysis
- Fully integrated system

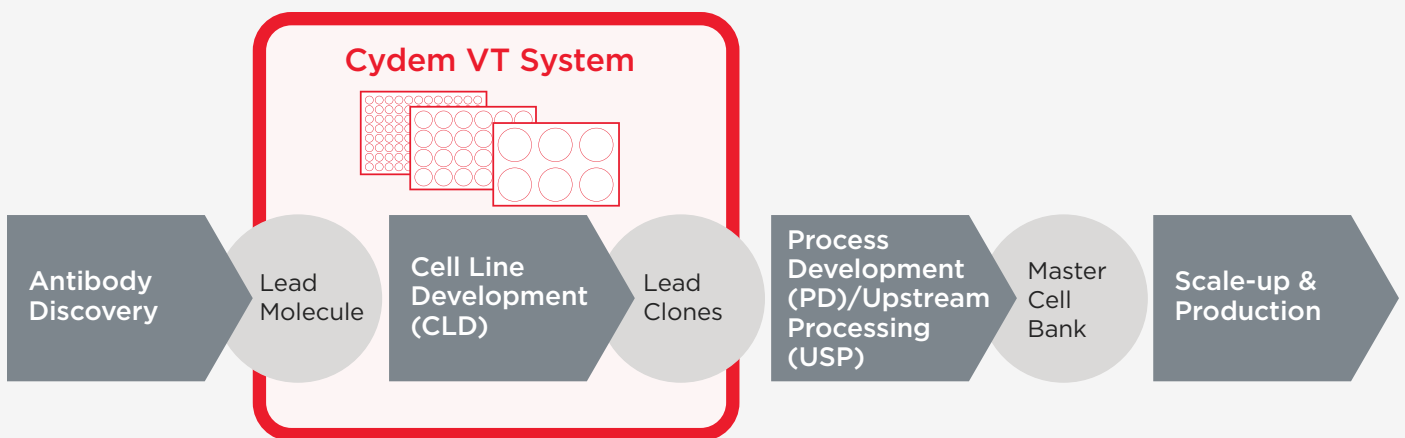
ACCELERATING
answers



Experience the Power of ONE Integrated Workflow

Success doesn't come easily in cell line development. But the rewards of solving multiple problems—such as compressed timelines, weekend staffing challenges, budget constraints, and more—are beyond value. Consider: From one high-producing clone can come a drug that helps millions of people. One instrument that integrates multiple technologies can generate added insights into clones and minipools. Lab managers working with the Cydem VT Automated Clone Screening System can impact their team's success, the company's future, and the lives of millions of people by selecting the best clone for eventual therapies and cures. That's the power of ONE.

- **More Throughput:** 96 x 5 mL parallel microbioreactors.
- **Reduced Selection Risks:** pH-controlled, fed-batch conditions with well-specific gassing for pH and dissolved oxygen (DO) regulation.
- **Earlier Insights:** Regular cell count, viability and titer measurements throughout the entire cultivation.
- **Full Automation:** Reduced manual lab work by up to >90%; reduced human error; reduced risk of contamination; no need to work weekends.
- **Trusted Integration:** Beckman Coulter Life Sciences is THE vendor for everything: parts, consumables, sales, applications and service.



All You Need for Your Pool and Top Clone Screening Experiment

Offering the capabilities to screen more clones and minipools in cell line development, and freedom to walk away from the instrument for at least three days, the Cydem VT system leverages the advantages of automation and adds what's been missing: insights. It screens under conditions close to biomanufacturing production, while collecting vital data on cell growth and productivity all along the way.

- Automated liquid handler
- Microbioreactor
- Antibody titer module
- Cell count & viability module
- Validated reagent & consumables kits

Consolidate your Data Analysis into ONE System

Integrating multiple Beckman Coulter technologies into a single, standalone platform, the Cydem VT Automated Clone Screening System opens up a whole new world to hard-working lab managers and scientists, who strive daily for success in the high-pressure world of cell line development. Gain more understanding from more clones and minipools from one single experiment.



Integrated bioreactor module:

- Cultivate 96 cultures in 24-deep well bioreactor plates in parallel
- Online monitoring of pH, DO, and biomass
- Unique gassing chip for well-individual gassing control
- Maintain optimal pH and DO levels in your cultivations



Integrated cell count and viability module:

- Regular updates of cell count and viability throughout your entire experiment
- Accurate and precise measurements with low sample volume (43 μ L)
- Utilizes our well-known Vi-CELL BLU Analyzer technology



Integrated titer module:

- Regular monoclonal antibody (mAb) titer measurements
- Small sample volume (10 μ L)
- Learn more about the productivity of your clones/minipools
- Make informed decisions about your clone selection

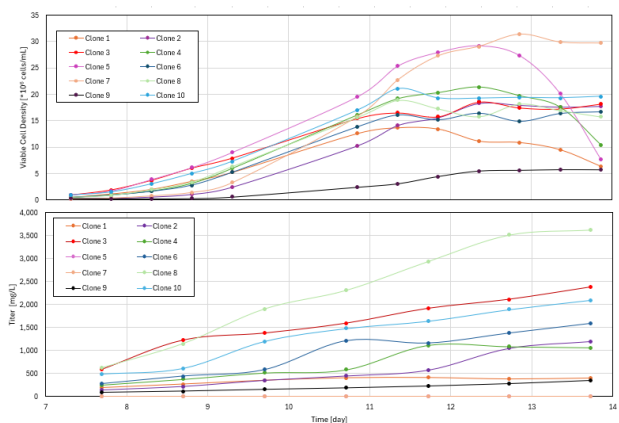


Integrated liquid handler:

- Automate your top clone screening
- Run more controlled fed-batch conditions and reduce the risk of selecting suboptimal clones
- Automated seeding and cell density normalization
- Schedule builder for analysis, fed-batch, and pH control

3-Day Walk-Away Automated Operation with Auto-Normalization of Cell Density

- Fully integrated solution with on-deck cell count, cell viability, mAbs titer, pH, and DO measurement.
- 3-day walk-away automated operation.
- Automated seeding of cell cultures.
- Automated sampling for on-deck measurements and external sampling.
- Schedule builder for analytical measurements, feeding strategy, and pH control.
- Centralized data on one instrument with the ability to easily export in .csv format.
- Single point of contact for sales, service, and technical support for the entire system, consumables, and reagents.



Clone screening of 96 clones over 14 days. Viable cell density and mAbs titer displayed over the course of the experiment. For a better overview, 10 clones with different growth and productivity performances were selected.

System Specifications

Instrument as Installed*

Dimensions (WxDxH)	213 x 152 x 232 cm (84 x 60 x 91.5 in) with open door
Weight**	630 kg (1389 lbs)

* As installed - Instrumentation, HEPA filter, workstation cart with monitor and mounting arm positioned at a 45° angle

** Weight including reagents and consumables

Environmental Requirements

Electrical requirements	<p>Europe (230 V-option): Each Rated 16A. Requires two 230 VAC, 16A CEE 7/7 outlets (same or separate 16A service)</p> <p>North America (115 V-option): Each Rated 16A. Requires two 120 VAC, 16A NEMA 5-20 outlets (same or separate 20A service)</p> <p>Power consumption: ≤ 2520 watts</p>
Fluid requirements	<p>DI water, degassed</p> <p>Isopropyl alcohol</p> <p>0.5 M NaOH</p>
Gassing requirements	<p>CO₂, O₂, N₂</p> <p>1 - 1.5 bar inlet pressure, connection fitting to 4 mm OD tubing</p>

Analytical Module Specifications

Cell health module	<p>Min./Max. cell count: 0.2 x 10⁶ - 60 x 10⁶ cells/mL</p> <p>Viability: 0 - 100 %</p>
Titer module	Min./Max. titer: 200 - 10000 mg/L
Bioreactor module	<p>DO regulation range: 0 to 120%</p> <p>pH measurement range: 6.5 to 7.5</p>



Cydem VT system dimensions

Part number	Description
D03895	Cydem VT Automated Clone Screening System, 115 V
D03896	Cydem VT Automated Clone Screening System, 230 V
C84309	Cydem VT System Cell Culture Standard Experiment Kit
C86430	Cydem VT System IgG Titer Standard Experiment Kit
C86225	Cydem VT System IgG Titer Extended Experiment Kit
C84310	Cydem VT System Cell Health Test Kit
C87046	IgG Standard Kit, 10 mg
C88594	Cydem VT System Consumables Kit

From one clone can arise a therapy that helps millions of people. From one lab manager can flow a string of selection successes that elevates the team and speeds discovery of the next big cure. It's not imagination. It's more a reality than ever. The Cydem VT system combines multiple trusted technologies into a standalone system. It's a single platform that allows user-independent cell growth, and antibody titer measurement to accelerate the selection of the best clones. Discover the difference you can make with an instrument like no other at beckman.com/cydemvt.



Product not for use in diagnostic or therapeutic procedures.

© 2025 Beckman Coulter, Inc. All rights reserved. Beckman Coulter, the stylized logo, and the Beckman Coulter product and service marks mentioned herein are trademarks or registered trademarks of Beckman Coulter, Inc. in the United States and other countries.

For Beckman Coulter's worldwide office locations and phone numbers, please visit Contact Us at beckman.com

2023-GBL-EN-104261-v5

