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MEDICAL DEVICE
IN EUROPE**



The CliniMACS Prodigy®

Moving cell manufacturing towards the next level

Automated cell processing from cell sample to final product

- Flexible programming options
- MACS® Cell Separation
- Cell washing procedures
- Fully automated, closed system
- Density gradient fractionation
- Optimized cell culture

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CliniMACS Prodigy®: a leap forward in automated cell processing

The CliniMACS Prodigy® represents the next generation in automated cell processing. This GMP-compliant device offers advanced integrated solutions to streamline cell-processing workflows: from cell fractionation through cell culture to formulation of the final product. Since its introduction in 1997 the CliniMACS Cell Separation System has become a proven technology for the development and establishment of cell-based therapies. The new CliniMACS Prodigy now offers a flexible platform enabling the separation of virtually any cell type as well as customized separation protocols that meet specific sample requirements.

Cell washing

- Different washing programs
- Continuous and discontinuous centrifugation
- Temperature-controlled centrifugation chamber
- Volume reduction and adjustment

Density gradient separation

- Blood buffy coat separation with automatic layer detection
- Separation of blood into different components, e.g., plasma, leukocytes, erythrocytes

MACS® Cell Separation

- Automated magnetic labeling and separation
- Cell enrichment and depletion
- Complex multistep separations
- Multiple CliniMACS Reagents for separation of various cell types
- Proven CliniMACS Technology

Cell cultivation

- For adherent and non-adherent cells
- Automated feeding and harvesting
- Atmosphere control
- Integrated cell culture microscope
- Multiple input ports for different media or cytokines

Complex protocols

- Cell isolation, culture, and formulation
- Long-term cell culture
- Complex differentiation processes
- Antigen loading

Final product formulation

- Volume adjustment
- Resuspension into storage media
- Final formulation in, e.g., freezing solution
- Transfer into final container or freezing bag

Closed system

- Single-use disposables
- Multiple input lines with sterile filters
- Output line for optional in-process control
- Substantially reduced clean room requirements

Automation

- Automation with closed disposables
- Remote process supervision of multiple systems
- Optimized for complex manufacturing processes
- Optional customization of tubing sets, buffers, and reagents

Instrument specification

Starting volume	100 mL–50 L, depending on procedure
Bar code reader	LED-based
Tube sealer	handheld, for sealing PVC and EVA tubes of CliniMACS Prodigy Tubing Sets
Atmosphere	Gas-Mix Unit for air, N ₂ , and CO ₂
Temperature control	4–38 °C
Centrifuge	disposable centrifugation chamber, up to 400×g
Camera	camera for layer detection, microscope camera
Fluid transport	pinch valves, roller pump
Sensors	pressure sensors, liquid sensors, temperature sensor
MACS Cell Separation Unit	for CliniMACS Separation columns
Software	supported by graphical user interface
Bag hanger	6 hangers for bag sizes of up to 3 L
Ports	4×USB-2.0
Monitor	8.4" TFT touchscreen (internal)
Power consumption	810 VA
Weight	70 kg
Size (W×D×H)	735×400×480 plus max. 600 mm for bag hangers
Input voltage	110–230 VAC
Frequency	50–60 Hz



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In the U.S. the components of the CliniMACS Prodigy product line are for research use only and not for therapeutic or diagnostic use.

CliniMACS Reagents, Tubing Sets, Instruments, and PBS/EDTA Buffer are manufactured and controlled under an ISO 13485 and ISO 9001 certified quality system. In Europe, the CliniMACS System and Reagents are available as CE-marked medical devices. In the USA, CliniMACS Reagents are available for use only under an approved Investigational New Drug (IND) application or Investigational Device Exemption (IDE). CliniMACS MicroBeads are for research use only and not for use in humans. MACS, CliniMACS, and CliniMACS Prodigy are registered trademarks of Miltenyi Biotec GmbH. Copyright © 2013 Miltenyi Biotec GmbH. All rights reserved.