Miltenyi Biotec

QuadroMACS™ XL Separator

QuadroMACS XL Separator	130-136-311
QuadroMACS XL Starting Kit	130-139-357

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1. Description

This product is for research use only.

Components	QuadroMACS XL Separator
Storage	Store dry at +15 to +35 °C. Do not store under a corrosive atmosphere, for example, in a chemical hood. The QuadroMACS XL Separator has no expiration date.
Maintenance	MACS® Separators are sensitive to heat and aggressive solvents, such as acetone. Do not autoclave. MACS Separators can be cleaned with a soft cleansing tissue and a mild detergent, and disinfected using 70% ethanol. Do not drop MACS Separators. Do not use if damage is visible.

1.1. Important safety information

Magnetic field hazards



STRONG MAGNETIC FIELD

⚠ WARNING **Strong magnetic fields can influence the functioning of pacemakers or electronic medical implants.**



- If wearing pacemakers or electronic medical implants keep a distance of at least 30 cm.

⚠ CAUTION **Magnetizable objects can suddenly move towards the magnet.**

- Keep all magnetizable objects at a distance of at least 30 cm.
- Do not place QuadroMACS XL Separators closer than 50 cm to each other.

NOTICE **The QuadroMACS XL Separator has a powerful magnet.**
Strong magnetic fields can damage equipment susceptible for magnetic fields.

- Keep all magnetic storage devices, electronic equipment, and magnetizable objects at a distance of at least 30 cm.

NOTICE **The QuadroMACS XL Separator is a heavy separator.**
Risk of crushing extremities.

- Do not drop MACS Separators.

1.2 Background information

The MACS Separation system is developed to separate human and animal cells. Moreover it can be used for the separation of plant protoplasts, bacteria, cell organelles, and other bioparticles. The material to be separated, for example, cells, is first magnetically labeled with superparamagnetic MACS MicroBeads. After magnetic labeling, cells are passed through a MACS Column which is placed in the strong permanent magnet of the MACS Separator. The ferromagnetic spheres in the column amplify the magnetic field by 10,000-fold, thus inducing a high gradient. Unlabeled cells pass through while magnetically labeled cells are retained within the column. After removal of the column from the magnetic field, the retained fraction can be eluted. Both fractions, labeled and non-labeled, are completely recovered.

1.3 Applications

The QuadroMACS XL Separator allows the performance of up to four simultaneous cell separations in combination with XLS Columns for positive selection or depletion.

For details, refer to the respective data sheets.

1.4 Reagent and instrument requirements

- XLS Columns (# 130-136-286). For details, refer to the respective MACS Column data sheets.
- (Optional) MACS XL Tube Rack (# 130-136-312). Refer to the data sheet of the MACS XL Tube Rack for detailed information.

2. Technical specifications

- Weight of the QuadroMACS XL Separator: approximately 2.1 kg

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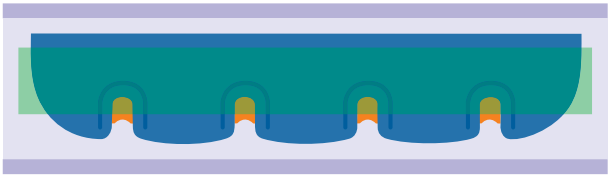
3. Instructions for use

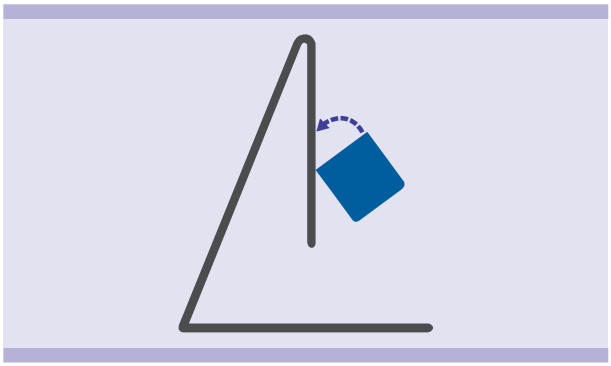
⚠ CAUTION **The QuadroMACS XL Separator has a strong magnetic field.**



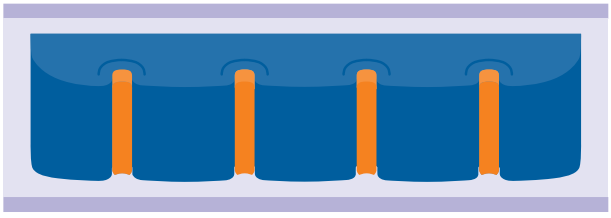
- Assure not to have fingers between magnet and MACS MultiStand, or magnet and column.

1. Attach the QuadroMACS XL Separator to the MACS MultiStand by slowly tilting the magnet from bottom to top toward the MACS MultiStand. Be careful when attaching the QuadroMACS XL Separator to avoid trapping your fingers. Therefore, touch the magnet only in the area marked in green at the bottom and top of the separator. The QuadroMACS XL Separator can be pushed until aligned correctly.





2. Check that the ejection blocks (orange colored) in the gap of the magnet are attached before placing the MACS Column into the magnetic field of the QuadroMACS XL Separator. Do not remove ejection blocks of the QuadroMACS XL Separator.



3. Place the MACS Columns into the magnetic field of the QuadroMACS XL Separator.
4. Proceed to cell separation. For details, please refer to the MACS Column and Cell Separation Reagent data sheets, respectively.
5. After separation, remove MACS Columns from the QuadroMACS XL Separator by holding the MACS Column at the reservoir. Slowly moving it forward and then downward to ensure safe detachment from the magnets.

Refer to **www.miltenyibiotec.com** for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

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