

QuadroMACS Separator	130-090-976
QuadroMACS Starting Kit (LS)	130-091-051
QuadroMACS Starting Kit (LD)	130-092-857

Contents

1. Description
 - 1.1 Important safety information
 - 1.2 Background information
 - 1.3 Applications
2. Technical specifications
3. Instructions for use

1. Description

This product is for research use only.

Components	QuadroMACS Separator (# 130-090-976)
	or
	QuadroMACS Starting Kit (LS) (# 130-091-051):
	QuadroMACS Separator (# 130-090-976)
	MACS® MultiStand (# 130-042-303)
	LS Columns (# 130-042-401)
	MACS 15 mL Tube Rack (# 130-091-052)
	One unit of MACS MicroBeads, or one MACS MicroBead Kit, or one MACS Cell Isolation Kit
	or
	QuadroMACS Starting Kit (LD) (# 130-092-857):
	QuadroMACS Separator (# 130-090-976)
	MACS MultiStand (# 130-042-303)
	LD Columns (# 130-042-901)
	MACS 15 mL Tube Rack (# 130-091-052)
	One unit of MACS MicroBeads, or one MACS MicroBead Kit, or one MACS Cell Isolation Kit
Storage	Store separators dry at 15–35 °C and columns dry at 10–35 °C. Do not store separators and MACS MultiStand under a corrosive atmosphere, for example, in a chemical hood. Store MACS Cell Separation Reagents protected from light at 2–8 °C. Do not freeze. The expiration date is indicated on the label.
Maintenance	MACS Separators and MACS Columns are sensitive to heat and aggressive solvents, such as acetone. Do not autoclave MACS Separators or the MACS MultiStand. MACS Separators and the MACS MultiStand 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



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.



Magnetizable objects can suddenly move towards the magnet.

- Keep all magnetizable objects at a distance of at least 30 cm.



The QuadroMACS 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.

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 Separator allows the performance of up to four simultaneous cell separations in combination with LS Columns (# 130-042-401), LD Columns (# 130-042-901), or Whole Blood Columns (# 130-093-545):

- LS Columns for positive selection or depletion
- LD Columns for untouched selection
- Whole Blood Columns for positive selection of cells directly from whole blood

For details, refer to the respective MACS Column data sheets.

2. Technical specifications

- Weight of the QuadroMACS Separator: 1.1 kg
- Size of the MACS MultiStand: 240×205×210 mm (W×D×H)
- Weight of the MACS MultiStand: 2.15 kg

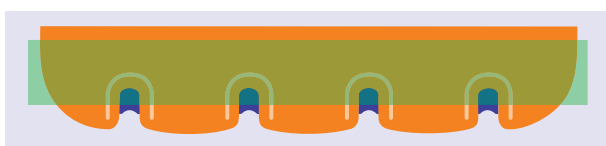
3. Instructions for use



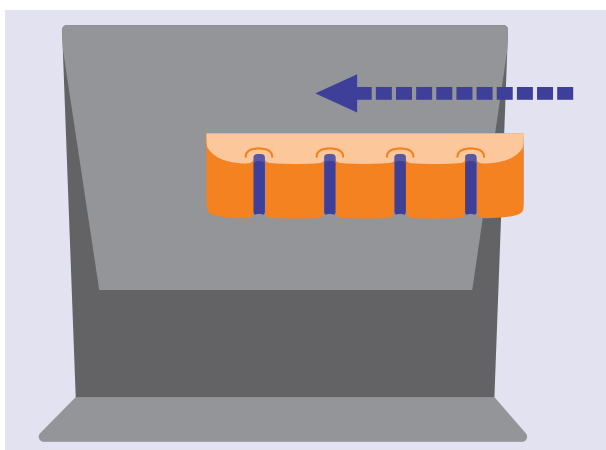
CAUTION The QuadroMACS Separator has a strong magnetic field.

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

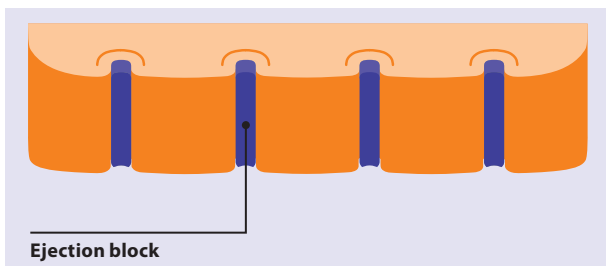
1. Attach the QuadroMACS Separator to the MACS MultiStand. Be careful when attaching the QuadroMACS Separator to the MACS MultiStand to avoid trapping your fingers. Therefore, touch the magnet only in the area marked in green at the bottom and top of the separator.



Place the separator adjacent to the MACS MultiStand and gently slide it on the MACS MultiStand until the magnet is aligned correctly.



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



3. Place the columns with the column wings to the front into the magnetic field of the QuadroMACS Separator.

4. Proceed to cell separation. For details, please refer to the MACS Column and Cell Separation Reagent data sheets, respectively.

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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