

Whole Blood MidiMACS™ Starting Kit	130-098-240
Whole Blood QuadroMACS™ Starting Kit	130-098-242

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1. Description

This product is for research use only.

Components	Whole Blood MidiMACS Starting Kit (# 130-098-240)
	Whole Blood Column Kit (# 130-093-545) MidiMACS Separator (# 130-042-302) MACS® MultiStand (# 130-042-303) MACS 15 mL Tube Rack (# 130-091-052) One unit of MACS Whole Blood MicroBeads or
	Whole Blood QuadroMACS Starting Kit (# 130-098-242)
	Whole Blood Column Kit (# 130-093-545) QuadroMACS Separator (# 130-090-976) MACS MultiStand (# 130-042-303) MACS 15 mL Tube Rack (# 130-091-052) One unit of MACS Whole Blood MicroBeads
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 MACS Separators have 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.

1.1 Background information

The MACS Separation system is based on the use of MACS MicroBeads, MACS Columns, and MACS Separators. Whole Blood Columns in combination with Whole Blood MicroBeads allow convenient positive selection of cells directly from whole blood, without density-gradient centrifugation and erythrocyte lysis. Optimal flow rates of whole blood samples during cell separation are achieved by a specially developed two-layer column matrix. The matrix is covered with a cell-friendly coating. After magnetic labeling with Whole Blood MicroBeads the whole blood sample passes through the Whole Blood Column, which is placed in the magnetic field of a MidiMACS or QuadroMACS Separator. The spheres amplify the magnetic field by 10,000-fold, thus inducing a high gradient within the column. The space between the spheres is several times larger than primary and most cultured cells. This allows the cells to freely flow through the column. Magnetically labeled cells are held in suspension and are retained within the column without binding to the column matrix. Thus avoiding cell aggregation. After removal of the Whole Blood Column from the magnetic field, Whole Blood Elution Buffer is applied to the column, and the magnetically retained cells are eluted as the positively selected cell fraction.

1.2 Applications

- The MidiMACS Separator allows the performance of up to 15 mL whole blood in combination with the Whole Blood Columns.
- The QuadroMACS Separator allows the performance of up to four simultaneous cell separations from 15 mL whole blood in combination with the Whole Blood Columns.

For details, refer to the Whole Blood Column Kit data sheet. For details about the Whole Blood MicroBeads, refer to the respective data sheet.

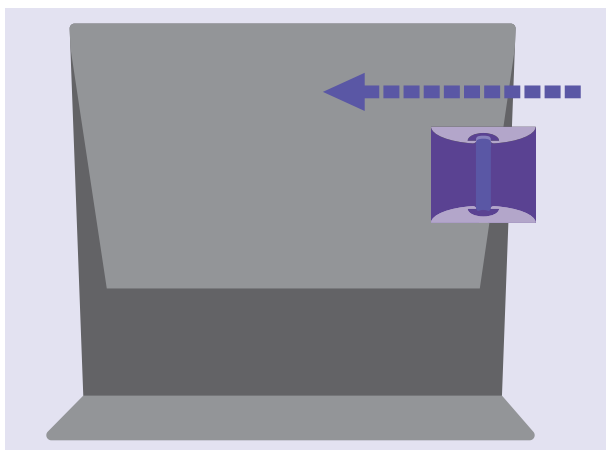
2. Technical specifications

- Weight of the QuadroMACS Separator: 1.1 kg
- Weight of the MidiMACS Separator: 300 g
- Size of the MACS MultiStand: 240 × 205 × 210 mm (W × D × H)
- Weight of the MACS MultiStand: 2.15 kg

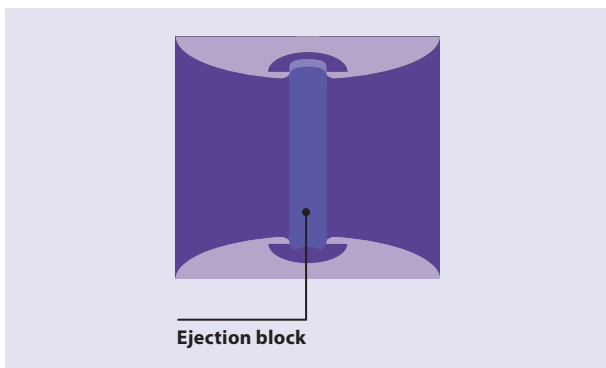
3. Instructions for use

3.1 MidiMACS Separator

1. Attach the MidiMACS Separator to the MACS MultiStand. 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 block in the gap of the magnet is attached before placing the MACS Column into the magnetic field of the MidiMACS Separator. Do not remove ejection block of the Separator.



3. Place the column with the column wings to the front into the magnetic field of the MidiMACS Separator.
4. Proceed to cell separation. For details, please refer to the MACS Column and Cell Separation Reagent data sheets, respectively.

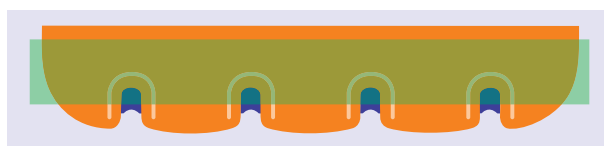
3.2 QuadroMACS Separator



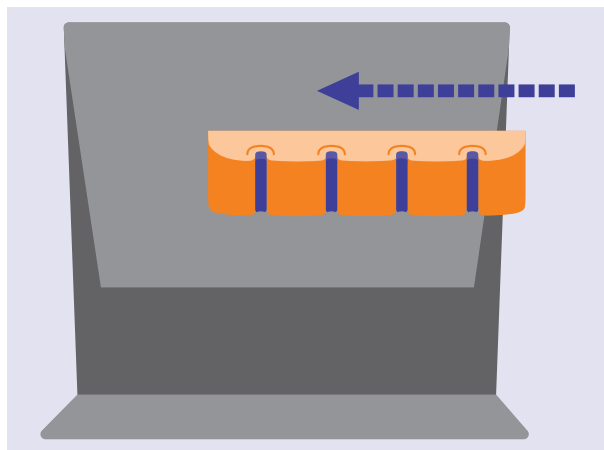
The QuadroMACS Separator has a strong magnetic field.

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

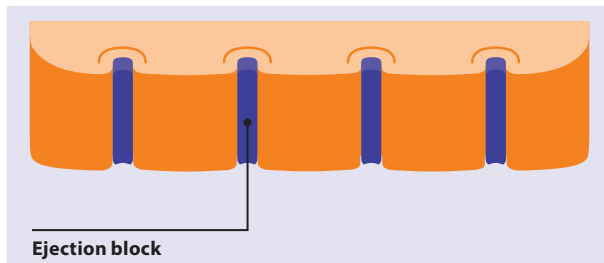
1. Attach the QuadroMACS Separator to the MACS MultiStand. Be careful when attaching the QuadroMACS Separator to the MACS MultiStand to avoid trapping your fingers. Therefore, touch the magnet only in the area marked in green at the bottom and top of the separator.



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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