

#### **Contents**

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

## 1. Description

This product is for research use only.

Components Mini & MidiMACS Starting Kit (MS, LS)

(#130-042-501)

MiniMACS Separator (#130-042-102) MidiMACS Separator (# 130-042-302) MACS\* MultiStand (# 130-042-303) MS Columns (# 130-042-201) LS Columns (# 130-042-401)

One unit of MACS MicroBeads, or one MACS MicroBead Kit, or one MACS Cell Isolation Kit

or

Mini & MidiMACS Starting Kit (MS, LD) (#130-091-632)

MiniMACS Separator (# 130-042-102) MidiMACS Separator (# 130-042-302) MACS MultiStand (# 130-042-303) MS Columns (# 130-042-201) LD Columns (# 130-042-901)

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.

# Mini & MidiMACS™ **Starting Kits**

Mini & MidiMACS Starting Kit (MS, LS) 130-042-501 Mini & MidiMACS Starting Kit (MS, LD) 130-091-632

#### 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.

**1** CAUTION

Magnetizable objects can suddenly move towards the magnet.

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

NOTICE

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 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 cell 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.

# 1.2 Applications

The MiniMACS Separator allows the performance of separations in combination with MS Columns (#130-042-201), Large Cell Columns (# 130-042-202), and M Columns (# 130-042-801):

- MS Columns for positive selection or depletion of cells
- Large Cell Columns for positive selection of large cells, e.g., megakaryocytes
- M Columns for isolation of molecules, e.g., RNA

The MidiMACS Separator allows the performance of cell separations in combination with LS Columns (#130-042-401), LD Columns (# 130-042-901), and Whole Blood Columns (# 130-093-545):

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- LS Columns for positive selection or depletion
- LD Columns for depletion
- 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 MiniMACS Separator: 80 g
- 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

Attach the MACS 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.

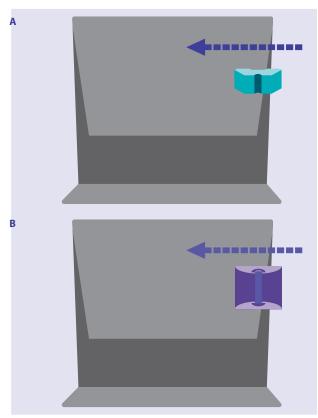
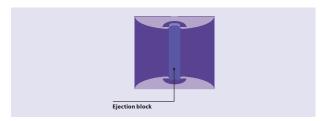


Figure 1: (A) MiniMACS Separator (B) MidiMACS Separator

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 MidiMACS Separator.



- 3. Place the column with the column wings to the front into the magnetic field of the MACS 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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