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## 1. Description

This product is for research use only.

<b>Components</b>	1 μMACS Separator
<b>Storage</b>	Store instruments dry and below 50 °C. Do not store μMACS Separator under a corrosive atmosphere, for example, in a chemical hood.
<b>Maintenance</b>	The μMACS Separator is sensitive to heat and aggressive solvents, such as acetone. Do not autoclave. μMACS Separator can be cleaned with a soft cleansing tissue and a mild detergent, and disinfected using 70% ethanol. Do not drop. 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.

#### NOTICE

**The μMACS 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 The μMACS Separation System

The μMACS Separation System has been developed for molecular biology applications, such as the isolation of mRNA, proteins, sequence-specific nucleic acids, or molecule complexes. Target molecules are labeled with paramagnetic μMACS MicroBeads and separated with μ Columns that provide a strong magnetic field when placed in a μMACS Separator.

The material to be separated should be well suspended and should not contain clumps, aggregates, or particles >30 μm. The magnetically labeled material is then passed over the μ Column and the labeled target molecules are retained in the column. The column is washed with suitable wash buffer to remove non-labeled material. The magnetically labeled material is subsequently eluted. For details on buffers, sample preparation, and wash steps, see individual μMACS MicroBead or μMACS Kit user manual / data sheet.

### 1.3 Applications

The μMACS Separator in combination with μ Columns and μMACS MicroBeads enables molecule isolation and processing. Up to 4 reactions can be performed simultaneously.

- mRNA isolation
- cDNA synthesis
- Immunopurification of proteins
- Transcription factor isolation
- Isolation of tagged proteins
- Virus isolation
- Exosome isolation (μ Columns with plungers)

### 1.4 Additional requirements

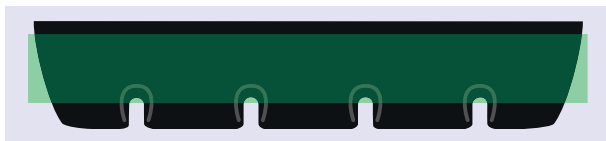
- 1 MACS® MultiStand (# 130-042-303). The MultiStand can hold one μMACS Separator.
- μ Columns (# 130-042-701)
- μ Columns with plungers (# 130-110-905)
- μMACS MicroBeads or μMACS Kits
- Exosome Isolation Kits

## 2. Technical specifications

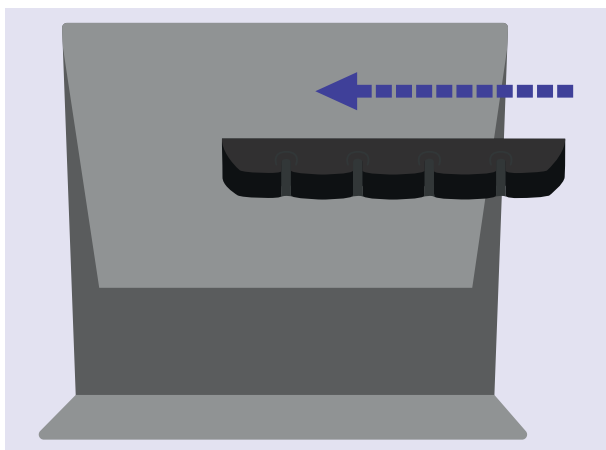
- Size of the μMACS Separator: 191×40×33 mm
- Weight of the μMACS Separator: 410 g
- The μMACS Separator is to be used with μ Columns. Information concerning μ Column capacities can be obtained in the individual μMACS MicroBead or μMACS Kit user manual / data sheet.

### 3. Instruction for use of the $\mu$ MACS Separator

1. Attach the  $\mu$ MACS Separator to the MACS MultiStand. Be careful when attaching the  $\mu$ MACS 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. Place the  $\mu$  Column into the magnetic field of the separator.  
**▲ Note:** Do not insert columns from above as the strong magnetic forces might cause the column outlet to touch the magnet leading to contamination of the eluate.
3. Equilibrate the  $\mu$  Column with suitable buffer (refer to  $\mu$ MACS Column and  $\mu$ MACS Reagent user manual / data sheet).
4. Proceed to magnetic separation according to  $\mu$ MACS Column and  $\mu$ MACS Reagent user manual / data sheet.

Refer to [www.miltenyibiotec.com](http://www.miltenyibiotec.com) for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit [www.miltenyibiotec.com](http://www.miltenyibiotec.com) for local Miltenyi Biotec Technical Support contact information.

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