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1. Description

Components 1 μMACS™ Separation Unit

Storage Store dry and below 50 °C.



▲ The μMACS Separation Unit is equipped with an extremely powerful magnet. Its magnetic field can damage computer screens, watches, floppy discs, and other objects sensitive to magnetic fields. Never allow the μMACS Separation Unit to be closer than 20 cm to any magnetically sensitive object.

▲ The μMACS Separation Unit is sensitive to aggressive media (e.g. acetone) and heat. Do not store under a corrosive atmosphere (e.g. in a chemical hood).

▲ The μMACS Separation Unit can be cleaned with soft cleansing tissue and a mild detergent.

▲ The μMACS Separation Unit can be disinfected using 70% ethanol.

1.1 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.

1.2 Product applications

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

Examples of applications

- mRNA isolation
- cDNA synthesis
- Immunopurification of proteins
- Transcription factor isolation
- Isolation of tagged proteins
- Virus isolation

1.3 Additional requirements

- 1 MultiStand (# 130-042-303). The MultiStand can hold one μMACS Separator
- μ Columns (# 130-042-701)
- μMACS MicroBeads or μMACS Kit for molecule isolation

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 μMACS™ Separation Unit

1. Attach the μMACS™ Separation Unit to the MultiStand.
2. Place the μ Column in 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 μ Column with suitable buffer (refer to μMACS Column and μMACS Reagent user manual / data sheet).
4. Proceed to magnetic separation according to μMACS Column and μMACS Reagent user manual / data sheet.

All protocols and data sheets are available at www.miltenyibiotec.com.

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