

Multi-8 Filter

Multi-8 Filter and Frame

Multi-96 Filter

Multi-8 Filter	130-092-546
Multi-8 Filter and Frame	130-092-548
Multi-96 Filter	130-092-547

Index

1. Description
 - 1.1 Background
 - 1.2 Technical specifications
 - 1.3 Product applications
 - 1.4 Reagent and instrument requirements
2. Protocol for Multi-8/96 Filter
 - 2.1 Filtration into Multi-8/96 Columns
 - 2.2 Filtration into a Deep Well Block (2.5 mL)

1. Description

Components	12 Multi-8 Filter for filtration of lysates (#130-092-546) or 12 Multi-8 Filter plus Frame for filtration of lysates (#130-092-548) or 4 Multi-96 Filter for filtration of lysates (#130-092-547).
Product format	Multi-8 Filter enable a flexible use of one or multiple filter strips per isolation. Up to six Multi-8 Filter can be placed simultaneously into the Multi-8 Filter Frame. Multi-8 Filter can be purchased with or without the reusable Multi-8 Filter Frame. The Multi-96 Filter contains four single-packed filter plates for 96 reactions that do not require a Multi-8 Filter Frame.
Storage	Store filter in a dry place at room temperature. Do not use after expiration date.

1.1 Background

The patented MACS® Column Technology is based on the usage of MACS MicroBeads, MACS Columns, and MACS Separators. Multi-8 Columns and Multi-96 Columns have been developed for the gentle isolation of MicroBead-labeled molecules with the MultiMACS Separator. To prevent clogging of the columns when using difficult material or large sample amounts, the lysate should be loaded onto the Multi-8 Filter or Multi-96 Filter first. Multi-8 Filter and Multi-96 Filter are optimized for gravity flow with a high flow rate for the removal of larger particles (approximately >30 µm).

1.2 Technical specifications

- For maximal sample amounts loaded on the Multi-8 Filter or Multi-96 Filter, refer to the MultiMACS (mRNA Isolation) Kit user manual.
- Columns have to be filled with 1 mL lysate (lysate has to contain 1% detergent).
- Void volume: 80 µL (gravity flow).
- Typical flow rate for Lysis/Binding Buffer without sample: 850 µL/minute.
- Size exclusion: approximately 30 µm.
- Multi-8/96 Filter are for single use only.

1.3 Product applications

Multi-8/96 Filter are used to prevent clogging of Multi-8/96 Columns which would interfere with molecule isolation and could lead to cross contamination of adjacent wells. Multi-8/96 Filter are recommended for the isolation of mRNA from tissue and large cell amounts in combination with MultiMACS mRNA Isolation Kit and a MultiMACS Separator. Multi-8/96 Filter are optimized for gravity flow. Filtering with Multi-8/96 Filters can be performed in one step with magnetic isolation by placing the Multi-8/96 Filter onto the Multi-8/96 Columns, that are inserted in the MultiMACS Separator (see 2.1). Alternatively, Multi-8/96 Filter can be placed onto a Deep Well Block (DWB) to filter and collect the lysate before applying it onto the Multi-8/96 Column (see 2.2).

▲ **Note:** Samples with high viscosity might cause reduced column flow or column clogging of Multi-8/96 Filter. Therefore, a DNA shearing step is recommended before loading the lysate onto the Multi-8/96 Filter.

1.4 Reagent and instrument requirements

- For mRNA isolation:
MultiMACS mRNA Isolation Kit
(12 × 8-well strips: #130-092-520;
4 × 96-well plates: #130-092-519)
- MultiMACS Separator (#130-091-937)
- (Optional) Deep Well Block (DWB)
(2.5 mL, #130-092-549)

2. Protocol for the Multi-8 and Multi-96 Filter

2.1 Filtration into Multi-8/96 Columns

1. Follow the instructions of the MultiMACS (mRNA Isolation) Kit user manual and the Multi-8/96 Column data sheet to start MultiMACS Separator and to insert and rinse Multi-8/96 Columns.

2. A) Using Multi-8 Filter

Unpack up to six Multi-8 Filter strips, place them into the Multi-8 Filter Frame, and put them onto the adequate number of Multi-8 Columns in the MultiMACS Separator.

▲ **Note:** Make sure the Multi-8 Columns and Multi-8 Filter are placed into their respective frame so that Multi-8 Filter tips insert into Multi-8 Columns.

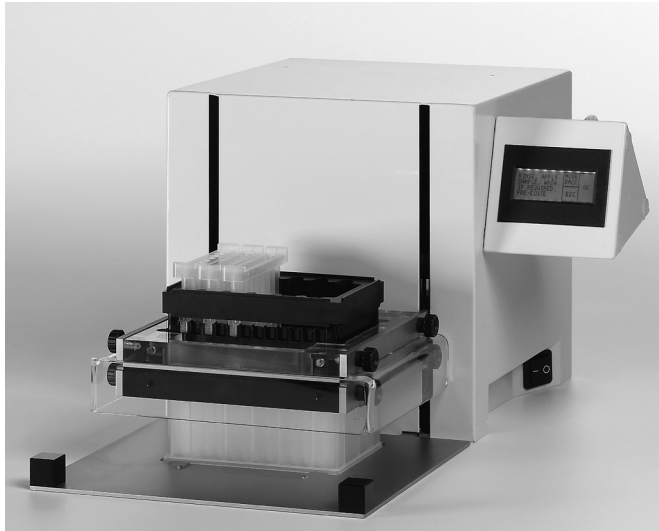


Figure 1: Multi-8 Filter and Frame placed onto Multi-8 Columns.

B) Using Multi-96 Filter

Unpack one Multi-96 Filter plate and place it onto the Multi-96 Columns in the MultiMACS Separator, so that filter tips insert into column reservoirs.

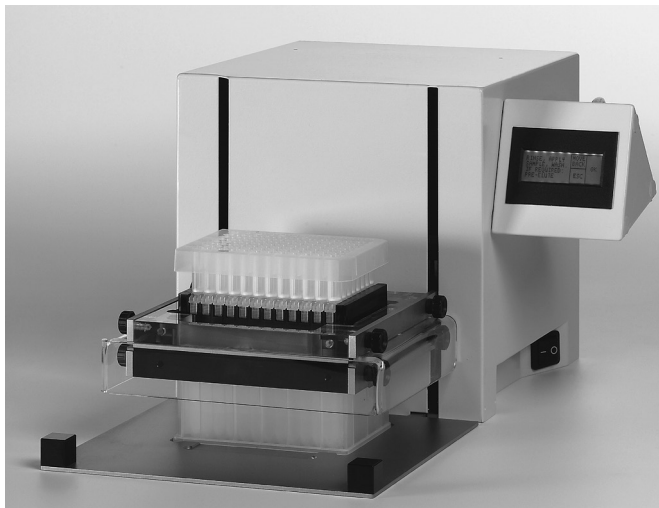


Figure 2: Multi-96 Filter placed onto Multi-96 Columns.

3. Add MicroBeads to lysate according to MultiMACS (mRNA Isolation) Kit user manual.
4. Add lysate onto the Multi-8/96 Filter. Wait 2–10 min to let the lysate pass through the filter by gravity flow.
▲ **Note:** MicroBead-labeled mRNA will pass through Multi-8/96 Filter.
5. Add 200 µL Lysis/Binding Buffer onto the Multi-8/96 Filter and wait until it has passed through.
6. Remove drops beneath the Multi-8/96 Filter by touching against the Multi-8/96 Column, then discard Multi-8/96 Filter. Wait until all liquid has passed through the columns.
▲ **Note:** Store Multi-8 Filter Frame for reuse.
7. Continue process according to MultiMACS (mRNA Isolation) Kit user manual.

2.2 Filtration into a Deep Well Block (2.5 mL)

▲ The Deep Well Block (DWB, 2.5 mL) included in the Multi-8/96 Columns is used for collection of unlabeled flow-through and wash fractions. In case the filtrate is collected in a DWB, an extra DWB has to be purchased (see section 1.4)

1. A) Using Multi-8 Filter

Remove the seal of those rows of a DWB (2.5 mL) that will be used. Unpack up to six Multi-8 Filter strips, place them into the Multi-8 Filter Frame, and put them onto the DWB.

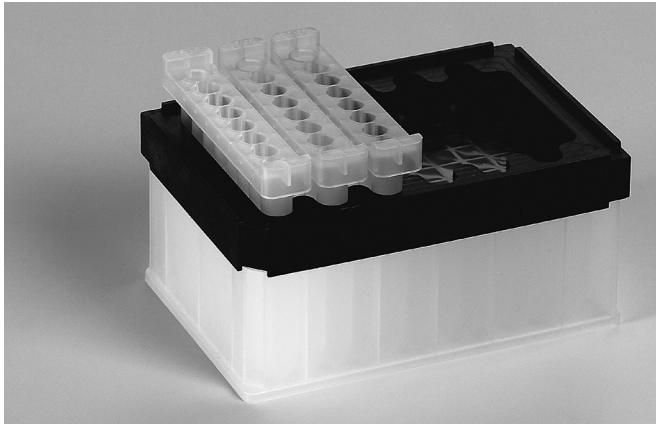


Figure 3: Multi-8 Filter and Frame placed onto Deep Well Block.

B) Using Multi-96 Filter

Unseal all rows of a DWB (2.5 mL). Unpack one Multi-96 Filter plate and place it onto the DWB.



Figure 4: Multi-96 Filter placed onto Deep Well Block.

2. Add lysate (optional: including MicroBeads) onto the Multi-8/96 Filter. Wait 2–10 min to let the lysate pass through the filter.

▲ **Note:** If Multi-8/96 Filters are centrifuged, lysate particles might enter the filtrate that will lead to clogging of the Multi-8/96 Columns during isolation. Do not centrifuge Multi-8/96 Filter with lysate containing MicroBeads as this can diminish yield of isolation.

3. Add 200 µL Lysis/Binding Buffer onto the Multi-8/96 Filter and wait until it has passed through.
4. Remove drops beneath the Multi-8/96 Filter by touching against the DWB, then discard Multi-8/96 Filter.
▲ **Note:** Store Multi-8 Filter Frame for reuse.
5. If not done before, add MicroBeads to the lysate.
6. Follow the instructions of the MultiMACS (mRNA Isolation) Kit user manual and the Multi-8/96 Column data sheet to start MultiMACS Separator; insert and rinse Multi-8/96 Columns.
7. Apply filtered lysate onto the columns.
8. Continue process according to MultiMACS (mRNA Isolation) Kit user manual.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

Legal notices

Limited product warranty

Miltenyi Biotec B.V. & Co. KG and/or its affiliate(s) warrant this product to be free from material defects in workmanship and materials and to conform substantially with Miltenyi Biotec's published specifications for the product at the time of order, under normal use and conditions in accordance with its applicable documentation, for a period beginning on the date of delivery of the product by Miltenyi Biotec or its authorized distributor and ending on the expiration date of the product's applicable shelf life stated on the product label, packaging or documentation (as applicable) or, in the absence thereof, ONE (1) YEAR from date of delivery ("Product Warranty"). Miltenyi Biotec's Product Warranty is provided subject to the warranty terms as set forth in Miltenyi Biotec's General Terms and Conditions for the Sale of Products and Services available on Miltenyi Biotec's website at www.miltenyibiotec.com, as in effect at the time of order ("Product Warranty"). Additional terms may apply. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING IF A PRODUCT IS SUITABLE FOR CUSTOMER'S PARTICULAR PURPOSE AND APPLICATION METHODS.

Technical information

The technical information, data, protocols, and other statements provided by Miltenyi Biotec in this document are based on information, tests, or experience which Miltenyi Biotec believes to be reliable, but the accuracy or completeness of such information is not guaranteed. Such technical information and data are intended for persons with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. Miltenyi Biotec shall not be liable for any technical or editorial errors or omissions contained herein.

All information and specifications are subject to change without prior notice. Please contact Miltenyi Biotec Technical Support or visit www.miltenyibiotec.com for the most up-to-date information on Miltenyi Biotec products.

Licenses

This product and/or its use may be covered by one or more pending or issued patents and/or may have certain limitations. Certain uses may be excluded by separate terms and conditions. Please contact your local Miltenyi Biotec representative or visit Miltenyi Biotec's website at www.miltenyibiotec.com for more information.

The purchase of this product conveys to the customer the non-transferable right to use the purchased amount of the product in research conducted by the customer (whether the customer is an academic or for-profit entity). This product may not be further sold. Additional terms and conditions (including the terms of a Limited Use Label License) may apply.

CUSTOMER'S USE OF THIS PRODUCT MAY REQUIRE ADDITIONAL LICENSES DEPENDING ON THE SPECIFIC APPLICATION. THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING FOR ITSELF WHETHER IT HAS ALL APPROPRIATE LICENSES IN PLACE. Miltenyi Biotec provides no warranty that customer's use of this product does not and will not infringe intellectual property rights owned by a third party. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

Trademarks

MACS, the Miltenyi Biotec logo, and MultiMACS are registered trademarks or trademarks of Miltenyi Biotec and/or its affiliates in various countries worldwide.

Copyright © 2020 Miltenyi Biotec and/or its affiliates. All rights reserved.