Miltenyi Biotec

MACSwell™ HighRes Slides

Order no. 130-126-799

Contents

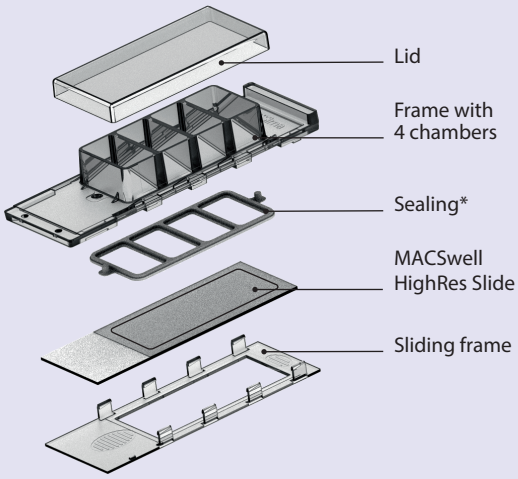
1. Description

This product is for research use only.

Components	2×5 pieces MACSwell HighRes Slides.
Storage	Store MACSwell HighRes Slides dry and protected from light at room temperature (+19 to +25 °C). The expiration date is indicated on the box label. Do not use after this date.

1.1 Background information

MACSwell HighRes Slides are designed for the analysis of tissue slices with the MACSima System. The MACSima System is a fully automated spatial biology platform capable of staining hunderds of markers on a single sample using MACSima Imaging Cyclic Staining (MICS) technology. MACSwell HighRes Slides have a 170 µm thick glass in the middle of the the slide for higher imaging quality, designed to be used with MACSwell Imaging Frames on the MACSima System.



* Sealing is fixed on the sliding frame

Figure 1: Parts of MACSwell Imaging Frames

1.2 Technical specifications

- For single use only.
- For professional laboratory use only.
- Adapter material: 0.9 mm glass with an imaging window.
- Imaging window with 170 µm thickness.
- Recommended working temperature between –80 °C and +98 °C.
- Size: 75.5 mm × 25.5 mm × 1.07 mm (length × width × height).

1.3 Reagent and instrument requirements

- MACSwell One Imaging Frames (# 130-124-673), MACSwell One Small Imaging Frames (# 130-126-794), or MACSwell Four Imaging Frames (# 130-124-676)
- MACSima System (# 130-121-164)
- MACSima Running Buffer (# 130-121-565)

2. Use of MACSwell HighRes Slides

▲ Please refer to the MACSima System user manual for detailed information on using the instrument.

▲ Ensure that the sealing of the frame is free from any contamination before assembling the sample carrier.

2.1 Sample preparation

▲ Fix samples prior to the start of the MICS experiment.

▲ MACSwell HighRes Slides are silanized, no additional coating is necessary.

▲ Arrange the silver positioning template (supplied with MACSwell HighRes Slides) underneath the MACSwell HighRes Slide. The different MACSwell Imaging Frame sizes are indicated on the template. The cutout in the template and the marks indicates the optimal position of the sample on the MACSwell HighRes Slide.

▲ Assure that the lettering on the MACSwell HighRes Slide is legible and facing upwards as the sample needs to be positioned on the flat side.

1. Prepare a MACSwell HighRes Slide with a fixed tissue sample. For positioning the sample(s) on the slide refer to figure 2. Maximum sample sizes are listed in table 1.

Miltenyi Biotec B.V. & Co. KG
Friedrich-Ebert-Straße 68, 51429 Bergisch Gladbach, Germany
Phone +49 2204 8306-0, Fax +49 2204 85197
macsde@miltenyi.com
www.miltenyibiotec.com

140-005-851.01

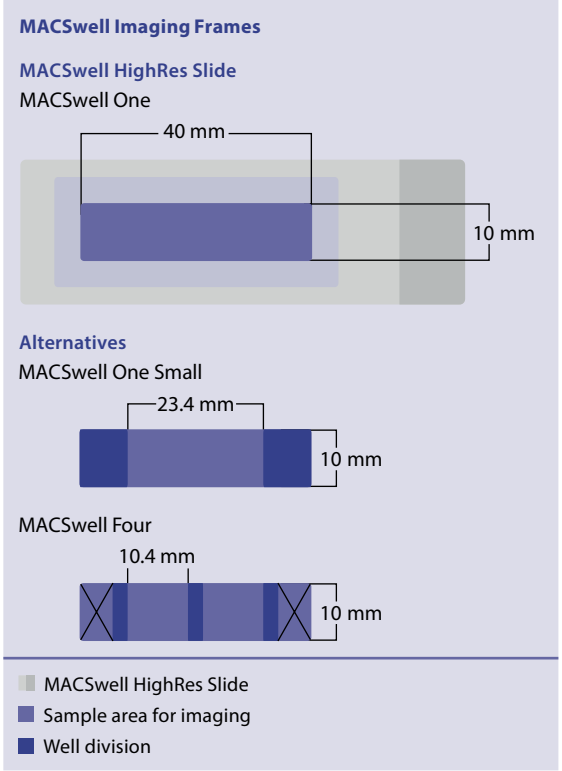


Figure 2: Sample area of the MACSwell Imaging Frames.

	MACSwell One	MACSwell One Small	MACSwell Four
Weight [g]	11.3	11.3	11.3
Number of wells	1	1	4
Well area [mm²]	931	437	190
Maximum filling volume [mL]	12.5	5.9	2.7
Working volume [µL] (staining)	1000	500	250
Maximum sample size [mm]	10×40	10×23.4	2× 10×10.4*

* Use only the two sample areas in the middle.

Table 1: Data of MACSwell Imaging Frames.

2. Remove frame including the lid from the sliding frame of the MACSwell Imaging Frame. Turn the frame upside down. The sealing is now on top.

   ▲ **Note:** The lid is only used for subsequent cell culture experiments.

3. Place the MACSwell HighRes Slide with a fixed sample on the sealing of the frame with the sample orientated to the sealing.

4. Ensure that the sample is not placed underneath the sealing.

   ▲ **Note:** To adjust the position move the MACSwell HighRes Slide carefully. Avoid fingerprints on the microscope slide.

   ▲ **Note:** Press the MACSwell HighRes Slide into the frame until stop. The slide has to be tightly adjusted with the bottom side to the frame.

5. Place the sliding frame on the frame. Start inserting the sliding hooks in the wider spot of the gaps, away from the MACSima Logo.

   ▲ **Note:** Make sure the sliding hooks of the sliding frame are correctly inserted in the gaps of the frame.

6. Adjust the sliding frame in the direction of the MACSima Logo. The end position is defined by the stopping edge on the sliding frame. Stop when the sliding frame can't be shifted anymore without applying too much pressure to avoid breakage.

7. Turn the MACSwell Imaging Frame back up.

8. Add MACSima Running Buffer to each well for a total volume of:

   1900 µL for MACSwell One,

   950 µL for MACSwell One Small, or

   475 µL for MACSwell Four Imaging Frames.

9. Proceed with loading the MACSwell Imaging Frames into the MACSima System.

2.2 Loading the MACSwell Imaging Frame into the MACSima System

▲ For the loading instructions please refer to the MACSwell Imaging Frames data sheet.

▲ For more information please refer to the MACSima System manual.

1. Start the MACSima System and software.

2. Follow the instructions of the instrument. When the software asks you to scan the barcode: Scan the 2D barcode on the MACSwell Imaging Frame with the barcode scanner of the MACSima System.

   ▲ **Note:** Barcodes of MACSwell Imaging Frames can be read even if still in primary packaging.

3. When the MACSima System door is open, insert the MACSwell Imaging Frame into the MACSima System so that the MACSima Logo is facing upwards on the far side of the cavities.

   ▲ **Note:** Make sure to always remove the lid before loading the MACSwell Imaging Frame into the MACSima System.

4. Follow the instructions of the instrument.

5. After the MICS experiment has finished, the MACSwell Imaging Frame can be removed from the instrument. Follow the instructions of the instrument. Disassemble the MACSwell Imaging Frame by removing the sliding frame and subsequently the MACSwell HighRes Slide. Discard the MACSwell Imaging Frame.

140-005-851.01

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

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

MACSima, MACSwell, and the Miltenyi Biotec logo are registered trademarks or trademarks of Miltenyi Biotec B.V. & Co. KG and/or its affiliates in various countries worldwide. All other trademarks mentioned in this publication are the property of their respective owners and are used for identification purposes only.