

Accellix Assay (Dual Cartridge)

INSTRUCTIONS FOR USE

INTENDED USE

Accellix Assays are intended to be used for phenotyping cell-surface markers on the Accellix Platform, a bench-top flow cytometry system. These instructions apply to all Accellix dual cartridge assays.

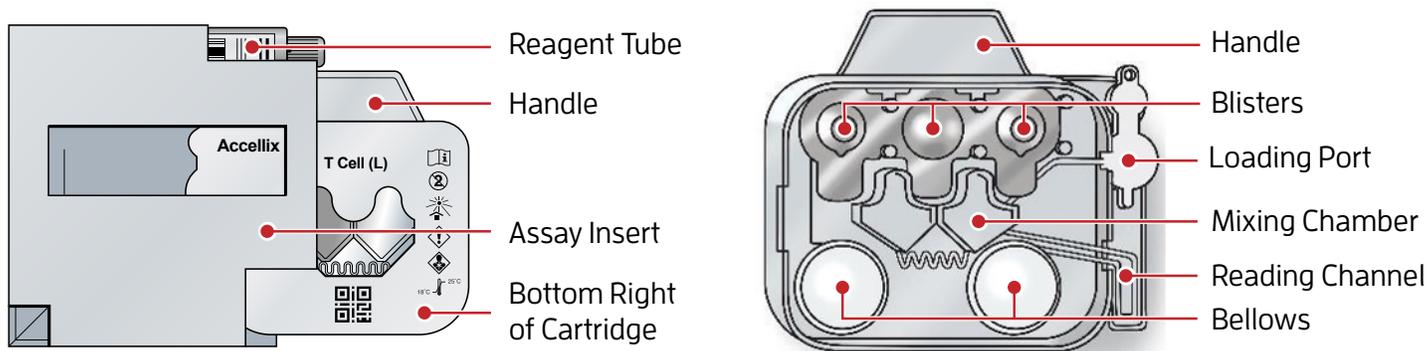
ASSAY CONTENTS AND REQUIREMENTS

Assay Kit Contents	Equipment Required	Instrumentation Required
FMO assay cartridge	Calibrated pipettes and tips (100–200µL)	Accellix Instrument
FMO assay reagent tube	Pulsed vortex mixer (Scientific Industries, Vortex-Genie Pulse, SKU: SI-P236)	
FS assay cartridge	Accellix Vortex Reagent Tube Adaptor	
FS assay reagent tube	Accellix Cartridge Holder (optional)	

ASSAY PROTOCOL

Note: Reagents are photosensitive. Minimize exposure to light.

1. Grip and pull the assay packaging flaps open by placing one hand on each side and pulling them apart.
2. Remove both assay inserts containing the cartridges and reagent tubes (in foil pouches) from the assay packaging.
3. Remove the FMO cartridge from the assay insert by gripping the bottom right corner of the cartridge. Avoid touching the reading channel or pressing against the assay insert as the cartridge is being removed.



4. Place the FMO cartridge, label-side down, on a clean surface.
5. Remove the FMO reagent tube foil pouch from the assay insert, tear open the foil pouch and remove the reagent tube. Visually check that the purple film of reagents is visible at the base of tube. If this has been dislodged, gently tap the bottom of the tube on a solid surface so the film moves back to the base of the tube. If the film remains on the side of the tube, make sure to deposit sample solution with a pipette onto the film instead of on the bottom of the tube (as directed in step 6), to ensure reagent is properly resuspended.
6. Uncap the FMO reagent tube and accurately draw and transfer 40µl of IX PBS to the bottom of the reagent tube using an appropriate pipette. Ensure to not scrape the bottom of the tube with the pipette tip.

Note: Refer to the assay's Technical Data Sheet to locate the recommended concentration range for the assay (found in the Technical Resources section on accellix.com).

7. Recap the FMO reagent tube and place it in the Reagent Tube Adaptor of the preprogrammed pulsed vortex mixer. Ensure the tube is sitting vertically, not at an angle, and press 'Start'.

Note: The mixer is programmed to mix the FMO reagent tube with the sample for 2 minutes at 1500rpm (vortex cycle = 2 seconds on, 1 second off). For more information on how to use the vortex, see the Operating Instructions for the Vortex Genie Pulse Mixer for an Accellix Assay.

Note: The dried reagent at the bottom of the FMO reagent tube must be completely dissolved for optimal assay performance.

8. After the mixing program has ended, immediately uncap the FMO reagent tube and carefully pipette the sample up and down 3 times making sure to not introduce bubbles. While holding the sample plug open, load 20µl of sample mixture into the loading port on the FMO microfluidic cartridge:

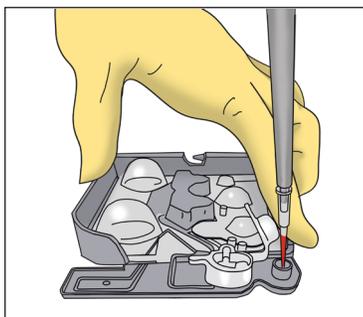


Figure A: Insert the pipette tip into the hole at the bottom of the loading port.

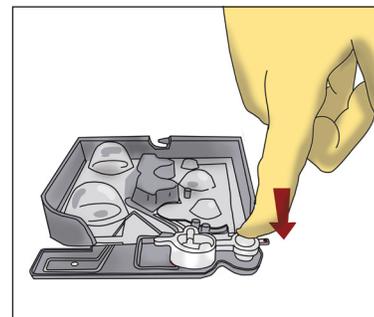


Figure B: Press the sample plug into place, covering the sample loading port.

- a. Firmly insert the end of the pipette tip into the hole at the bottom of the loading port, holding it at a 90-degree angle. Figure A.
- b. Depress the pipette plunger to the second stop (pushing to the second stop will move the sample into the microfluidic channel connected to the loading port). Ensure the pipette tip is fully removed from the loading port before releasing your thumb.

9. With the cartridge still lying flat, firmly press the sample plug into place over the sample loading port. Figure B.
 - a. Verify that the sample fluid moved down into the channel leading to the front mixing chamber on the cartridge. Figure C.

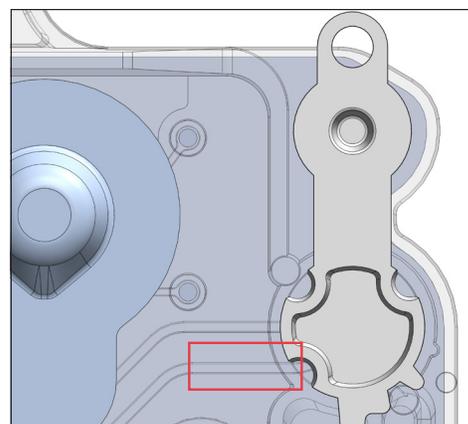


Figure C: Verify that sample fluid has moved into the microfluidic channel.

10. Prior to opening the instrument's loading door, initiate the assay run by tapping 'Start'  on the Accellix touchscreen. Follow the on-screen instructions to proceed.

11. Hold the cartridge by its handle with the label facing away from the operator. Insert the cartridge carefully into the cartridge slot. When a slight resistance is felt, press on the right-hand corner of the cartridge using the cartridge handle. A "click" will be heard and felt, confirming the cartridge has reached the proper position. Close the Accellix Instrument door by pressing on the curved circle on the right side of the door.
12. When prompted, enter the Sample ID using the on-screen keyboard or a barcode scanner and press 'Next'. 
13. Verify the entry and press 'Next'. 
14. The assay will then proceed automatically. Total running time, including sample incubation and data analysis, is approximately 30 minutes.
15. At the conclusion of the run, follow the instructions on the screen and remove the cartridge from the Accellix Instrument.
16. Repeat the instructions from steps 3 through 15 using the FS assay cartridge and FS assay reagent.
17. The resulting data files are saved on the Accellix internal hard drive and will automatically be copied from the Accellix instrument to a storage destination configured at the time of instrument installation. FCS files for FMO and FS runs can be used for manual gating using third party analysis software tools.

EXPECTED RESULTS

Each assay will display results and produce a results file at the conclusion of a run. The content of the results file and any applicable result thresholds are configured and determined automatically by the Accellix instrument upon reading the barcode on the assay-specific cartridge.

STORAGE, STABILITY AND DISPOSAL

1. Store Accellix Assays at room temperature (15–25°C) in their original packaging until ready for use.
2. Reagents are photo sensitive. Minimize exposure to light.
3. Accellix Assays are valid for use until the expiration date printed on the cartridge next to the hourglass icon and on the box.
4. Samples, used cartridges, and reagent tubes should be disposed of with proper biohazard precautions in accordance with local regulations.

WARNINGS AND PRECAUTIONS

1. Accellix Assays are not intended for diagnosis of human or animal disease.
2. For professional use only.
3. Follow standard laboratory safety precautions when handling the Accellix Assays. Safety datasheets are available upon request.
4. Do not use a damaged cartridge, reagent tube, or Accellix Assay with damaged packaging.
5. Do not use an expired cartridge or tube. The expiration date is located on the assay packaging and component labels.
6. Do not re-use a cartridge.
7. Do not open the instrument door when an assay is in progress, as this will abort the assay and the cartridge cannot be reused.

TROUBLESHOOTING

1. If an error is displayed on the screen of the Accellix Instrument at any point during a run, follow the instructions displayed. Please keep the cartridges in which the error occurred or take a picture of the front and back of the cartridge to share with Accellix Support.
2. If a failure occurs, or if the screen instructs to contact Accellix Support, contact:

Accellix, Inc.
2385 Bering Drive
San Jose, CA 95131
email: support@accellix.com

HAZARD IDENTIFICATIONS

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

Signal Word: Danger

Pictograms:

GHS07, GHS08



Hazard Statements:

H317 May cause an allergic skin reaction.

H350 May cause cancer.

Precautionary Statements:

P201 Obtain special instructions before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P308 + P313 If exposed or concerned: Get medical advice/attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container to industrial combustion plant.

This assay contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not totally guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious and handled observing the usual safety precautions (do not ingest; do not inhale).

To learn more about the Accellix Cell Phenotyping Platform, email us at info@accellix.com



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