

# 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.

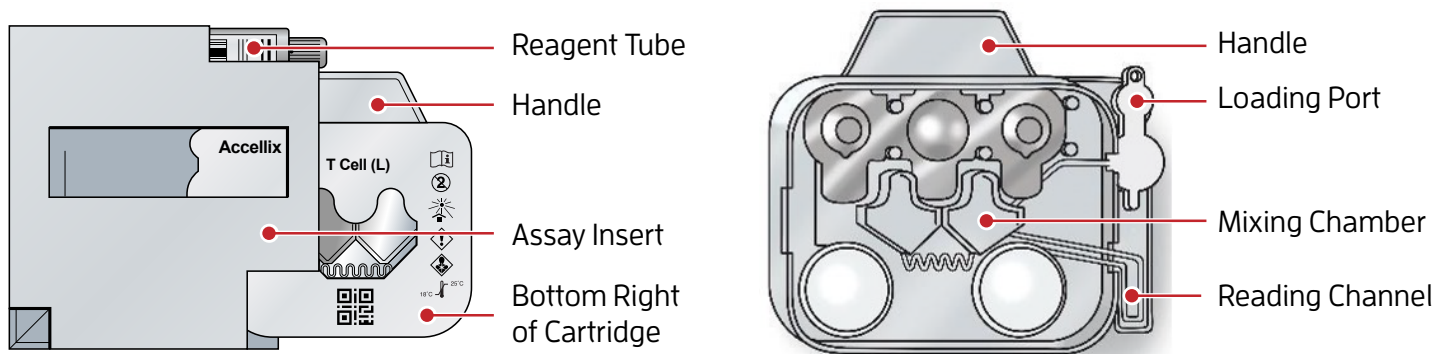
### ASSAY CONTENTS AND REQUIREMENTS

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 reagent tubes and cartridges 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 from under the assay insert flap. 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 tube.
6. Uncap the FMO reagent tube and accurately draw and transfer 40µl of well-mixed sample to the bottom of the reagent tube using a P100 or P200 pipette. Ensure not to scrape the bottom of the tube with the pipette tip.
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 pipette the sample up and down 3 times using a P100 or P200 pipette. While holding the sample plug open, load 20µl of sample mixture into the loading port on the FMO microfluidic cartridge:

- 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.

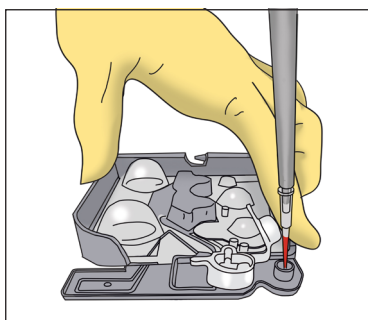


Figure A: Insert the pipette tip into the hole at the bottom of the loading port.

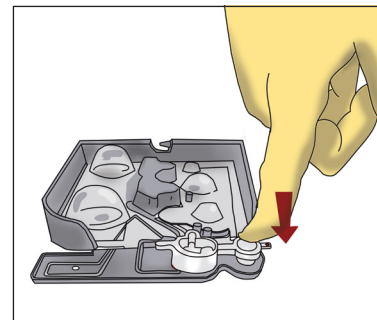



Figure B: Press the sample plug into place, covering the sample loading port.

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.
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.

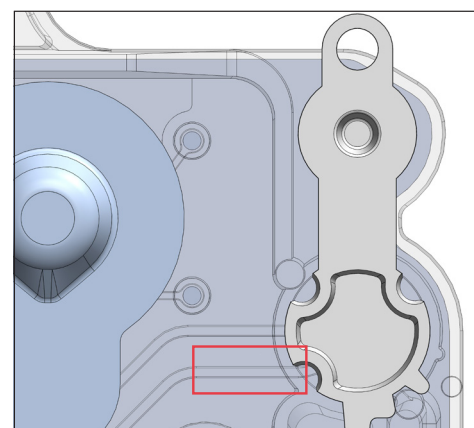




Figure C: Verify that sample fluid has moved into the microfluidic channel.

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'. A square button with a white right-pointing arrow and the word "Next" below it.
13. Verify the entry and press 'Next'. A square button with a white right-pointing arrow and the word "Next" below it.
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.
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](mailto:support@accellix.com)

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## HAZARD PICTOGRAMS



Signal Word:

Danger

Hazard Statement:

H332 - Harmful if inhaled.

H317 - May cause an allergic skin reaction.

H350 - May cause cancer.

H341 - Suspected of causing genetic defects.

## PRECAUTIONARY STATEMENTS

Prevention:

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.

P261 - Avoid breathing vapor.

P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

Response:

P308 + P313 - IF EXPOSED: Get medical attention.

P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.

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

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](mailto:info@accellix.com)



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