

# IMC Cell Segmentation Kit

## Frequently Asked Questions

### What is the IMC Cell Segmentation Kit?

The IMC™ Cell Segmentation Kit is an Innovative Solution\* that facilitates an end-to-end workflow for single-cell data analytics. The kit contains three individual plasma membrane markers conjugated to 195Pt, 196Pt, and 198Pt. These markers can be added to existing panels for improved nucleus and plasma membrane demarcation, enabling cell segmentation across multiple tissue types without taking channels away from your current panel.

### What is the format of this kit?

The kit contains one tube each of three plasma membrane markers conjugated to a platinum metal tag. One kit is designed to stain approximately 10 slides, depending on the amount of tissue per slide.

### Can I order each of the plasma membrane markers individually?

No. All three plasma membrane markers are available only as a kit. The kit is designed to use the markers in combination to label all cell membranes homogeneously.

### How do I purchase the IMC Cell Segmentation Kit?

The IMC Cell Segmentation Kit (TIS-00001) is available as one of our Innovative Solutions: custom-designed, lab-tested solutions that offer faster access to cutting-edge approaches to high-multiplex single-cell research. Although Innovative Solutions are developed by Fluidigm scientists, they are not part of our Maxpar® catalog product offering. Request a quote from your local sales representative or visit [fluidigm.com/innovate](http://fluidigm.com/innovate) for more information.

### What antibodies are being used in this kit?

The details of the three individual plasma membrane markers are proprietary.

### Do I still follow the FFPE staining protocol?

Yes. See the document *Imaging Mass Cytometry™ Staining Protocol for FFPE Sections* (PN 400322).

### Do I still use iridium as the DNA intercalator?

Yes. Use the Cell-ID™ Intercalator-Ir—125 µM stock solution (PN 201192A) at the recommended concentration of 1:400 dilution.

For technical questions contact your Field Applications Specialist or email [tis@fluidigm.com](mailto:tis@fluidigm.com).

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### Is this plasma membrane kit compatible with other Maxpar IMC antibodies?

Yes. The Pt channels allow this kit to be added to the Maxpar IMC antibody user's existing panel design. They do not take away from the 35 lanthanide channels used for panel design. The Pt channels are at the higher end of the mass spectrum and will not contribute to spillover for most other Maxpar IMC antibodies. However, you should perform a proper titration on iridium (191Ir and 193Ir) because its concentration might affect the ability to properly segment.

### Will they stain all human cells?

The markers will stain plasma membrane proteins that are expressed in a wide variety of cell types and have been chosen for optimal downstream data analysis that is based on cell segmentation.

### What samples have been tested with this kit?

A variety of human and mouse normal and tumor samples have been tested with this kit, for example pancreas, colon, bladder, lung, and breast.

### What are the host species for these plasma membrane markers?

All the plasma membrane markers are RabMAB® platform markers.

### Are the plasma membrane markers cross-reactive, and can they be used in mice?

The plasma membrane markers are cross-reactive in humans, mice, and rats. However, these markers have only been tested in human and mouse tissue for the purpose of cell segmentation.

### Can the kit be used if the sample has come from a cisplatin-treated patient?

The kit may not perform optimally for tissue from a cisplatin-treated patient due to signal from the treatment interfering with the membrane stains.

### Does the kit work with all segmentation analysis workflows?

This kit can be paired with any analytical pipeline that can take advantage of plasma membrane markers.

### What is the storage recommendation?

The recommendation for the kit is 2–8 °C.

\*Innovative Solutions are a menu of custom-made reagents and workflows developed and tested by Fluidigm scientists to give faster access to new cutting-edge solutions for high-multiplex single-cell analysis. Innovative Solutions are not part of the Maxpar® catalog.