# Atrandi BIOSCIENCES Droplet Genomics

# MICROFLUIDIC KIT CATALOGUE



Flexible platform for droplet microfluidics research



Agile platform for droplet analysis and manipulation

## **DROPLET GENERATION KITS**

MKN-G6	Droplet Size: <b>20–25µm</b>	Kit Size: <b>6 runs</b>
MKN-G7	Droplet Size: <b>25–30µm</b>	Kit Size: <b>6 runs</b>
MKN-G8	Droplet Size: <b>30–40µm</b>	Kit Size: <b>6 runs</b>
MKN-G9	Droplet Size: <b>40–55µm</b>	Kit Size: <b>6 runs</b>
MKN-G10	Droplet Size: <b>55–65µm</b>	Kit Size: <b>6 runs</b>
MKN-C8	Droplet Size: <b>30-40µm</b> co-flow chip	Kit Size: <b>6 runs</b>
MKN-C10	Droplet Size: <b>60–70µm</b> co-flow chip	Kit Size: <b>6 runs</b>

Each **Droplet Generation Kit** contains 1 microfluidic chip 5 mL Droplet Stabilization Oil 4 mL Sample Loading Oil 1 mL Emulsion Breaker 12 or 18 syringes 12 or 18 safe-needles 12 outlet tubings 1 disposable hemocytometer



## **DROPLET MANIPULATION KITS**

MKN-M2	Application: droplet merging	Kit Size: <b>3 runs</b>
MKN-A2	Application: <b>picoinjection</b>	Kit Size: <b>3 runs</b>
MKY-R2	Application: droplet selection	Kit Size: <b>5 runs</b>

Each Droplet Merging Kit contains	Each Picoinjection Kit contains
1 microfluidic chip	1 microfluidic chip
with etched electrodes	with etched electrodes
12 syringes	9 syringes
9 safe-needles	6 safe-needles
3 m loose tubing	3 m loose tubing
1.5 mL Sample Loading Oil	1.5 mL Sample Loading Oil
5 x 23G needles	5 x 23G needles
3 mL Spacing Oil	3 mL Spacing Oil
6 outlet tubing	6 outlet tubing

<b>○</b> Onyx	
<b>○</b> Onyx	
<b>≦</b> Styx	

Each **Droplet Selection Kit** contains 5 microfluidic chips with etched electrodes 10 ferrules 2 screw nuts 20 x 25 cm Styx Microfluidic Tubing 15 mL Spacing Oil



ACCELERATE YOUR MICROFLUIDIC RESEARCH

# **RELIABLE RESULTS WITH APPLICATION KITS**

Make your next discovery faster with Atrandi Biosciences microfluidic application kits!

Droplet generation and droplet manipulation kits contain all reagents and consumables to ensure reliable results of your droplet-based assays on ONYX and STYX systems.

#### Main advantages:

- all necessary components in one box
- · reliable droplet generation and droplet manipulation results every time
- compatibility with Droplet Genomics ONYX and STYX systems guaranteed
- easy to use
- custom kits for unconventional applications
- awesome technical support

**Droplet Generation Kits** are useful for all assays involving sample partitioning. Encapsulate single cells or single molecules into monodisperse droplets for subsequent high-throughput functional screening, digital analysis or sequencing.

Droplet Merging Kit allows to perform pairwise droplet merging to combine the contents of two different emulsions in a controllable manner. Use droplet merging for reagent addition to start, modify or stop the biochemical reactions.

**Picoinjection Kit** is an alternative reagent addition solution that does not involve droplet pairing. It is a good choice for high-throughput applications that need fast reagent addition and can tolerate slightly higher variation in droplet volume.

**Droplet Selection Kit** enables the convenient fluorescence-activated droplet sorting on the STYX system for high-throughput functional screening applications, such as protein engineering, drug discovery, functional metagenomics, and many others.





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# **CUSTOM APPLICATION KITS**

We are committed to supporting the research needs of our clients and strive to make adopting droplet microfluidics as effortless as possible. We believe that every research project is unique and to help you make even the most complex ideas a reality, we offer custom application kits containing microfluidic chips prototyped and manufactured according to your specific needs as well as all necessary reagents and consumables to run these chips. Our chips are made from PDMS elastomer allowing for a fast turnaround time. All custom client designs are kept strictly confidential.



## CUSTOM CHIP MANUFACTURING WORKFLOW

## Microfluidic chip design

A custom microfluidic chip is designed according to the client's needs and specifications by our highly experienced engineers.

## Photolithograhpy templates

The prepared design is used to make a high-resolution photolithography mask, which is then patterned on a silicon wafer by photolithography. The prepared template is inspected and measured to verify the feature quality.

## Custom chip manufacturing

PDMS elastomer is casted on a photolithography template and the design of microchannels is imprinted on the polymer's surface. The PDMS slab is then bound to a glass slide and the device channels coated to achieve a hydrophobic or a hydrophilic surface. The quality of each chip is manually inspected prior to kit assembly and shipping.

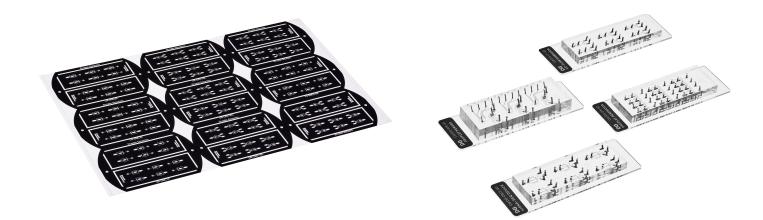
2-5 Business Days

7–10 Business Days

5-6 Business Days

### Note:

All chips are compatible with OD = 1.07 mm microfluidic tubing unless requested otherwise during ordering.





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