

Atrandi
BIOSCIENCES

**Droplet
Genomics**

MICROFLUIDIC KIT CATALOGUE



Onyx

Flexible platform for droplet
microfluidics research



Styx

Agile platform for droplet
analysis and manipulation

DROPLET GENERATION KITS

MKN-G6 Droplet Size: 20–25µm Kit Size: 6 runs

MKN-G7 Droplet Size: 25–30µm Kit Size: 6 runs

MKN-G8 Droplet Size: 30–40µm Kit Size: 6 runs

MKN-G9 Droplet Size: 40–55µm Kit Size: 6 runs

MKN-G10 Droplet Size: 55–65µm Kit Size: 6 runs

MKN-C8 Droplet Size: 30–40µm Kit Size: 6 runs
co-flow chip

MKN-C10 Droplet Size: 60–70µm Kit Size: 6 runs
co-flow chip

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: 3 runs

MKN-A2 Application: picoinjection Kit Size: 3 runs

MKY-R2 Application: droplet selection Kit Size: 5 runs



Each **Droplet Merging Kit** contains

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

Each **Picoinjection Kit** contains

1 microfluidic chip
with etched electrodes
9 syringes
6 safe-needles
3 m loose tubing
1.5 mL Sample Loading Oil
5 x 23G needles
3 mL Spacing Oil
6 outlet tubing

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

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.



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.

2–5 Business Days

Photolithography 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.

7–10 Business Days

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.

5–6 Business Days

Note:

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

