

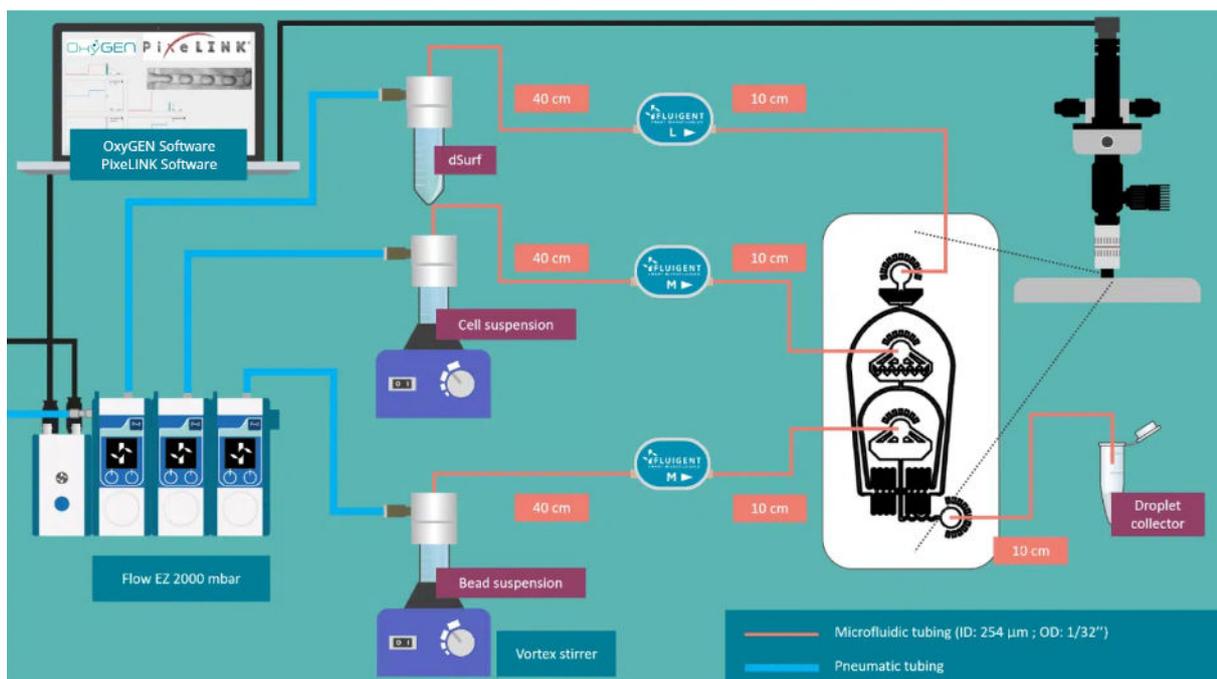
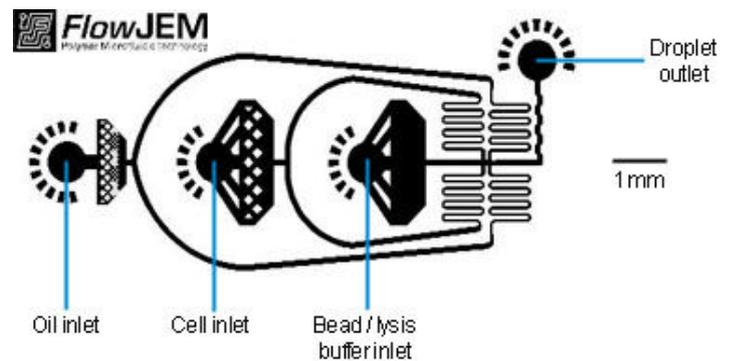
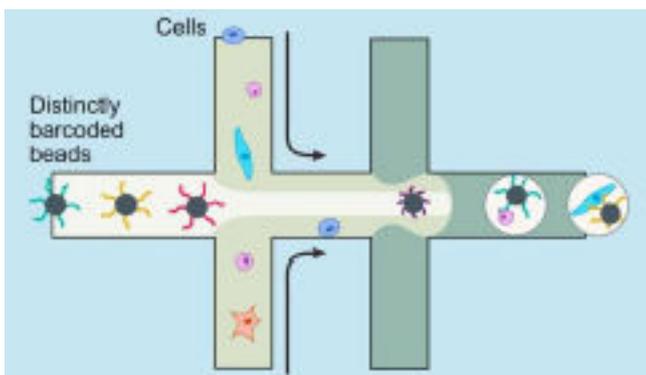
# DROPSEQ PACKAGE

## FOR OPTIMIZED DROPSEQ EXPERIMENT

ODROPSEQFPCK

## DESCRIPTION

Drop-sequencing (Drop-seq) developed by the McCarroll lab, Harvard Medical School, is a method designed for the parallel analysis of mRNA expression in thousands of individual cells following their encapsulation in tiny droplets. These droplets (nanolitre scale) are formed by precisely combining aqueous and oil flows in a specially designed microfluidic device (Drop-seq chip). Expression profiling can then be carried out in tens of thousands of cells in a matter of hours. The Drop-sequencing technique, including methodology is described in Macosko et al. Cell. 2015



# CONTENT

## Standard package

- 3 \*FlowEZ 2 bar
- 1 \*Link
- 1 \*Pcap 15 ml
- 2 \*Pcap 2ml
- 2 \*Flow unit M
- 1 \*Flow unit L
- DropSeq PDMS chip containing 23 designs
- Flow EZ supply kit
- Low flow rate kit
- High flow rate kit
- DropSeq connecting and tubing kit
- OxyGEN Software



## Optional products

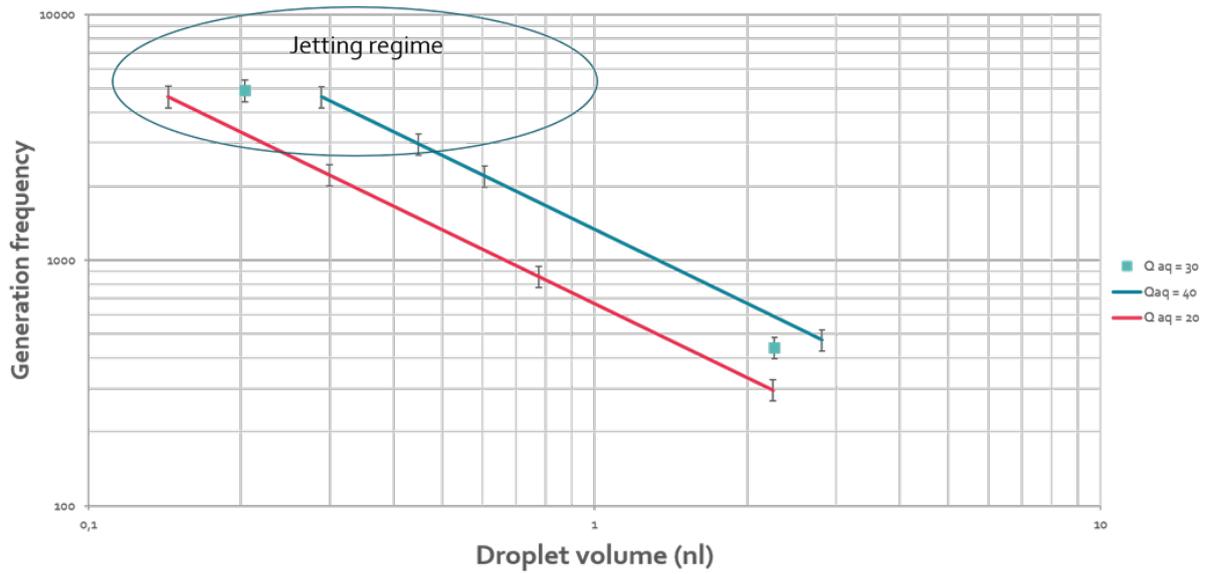
- 1 \* Digital high-speed microscope
- 12ml dSURF
- FPLG



# FEATURES AND BENEFITS

- » PDMS chip with Silane coating for better reproducibility and longer lifetime
- » Latest design: Each droplet generation device is based on the design recommended in the latest McCarroll lab Drop-seq protocol, ensuring the best chances of success.
- » Precision engineered robust devices durable over a wide-range of pressures, temperatures and flow rates
- » 23 Droplet generation devices per chip: Provides value for money in a chip which lasts. When the life of one device is depleted, simply move onto the next one
- » Produces highly mono-dispersed droplets: Reliable and consistent generation of droplets of optimal size for Drop-sequencing
- » Efficient production of transcript libraries: Superior design promotes optimal mixing of component fluids, thereby minimizing bead shearing or premature lysis of cells and mRNA release

# PHASE DIAGRAM



Where  $Q_{aq} = Q_{cells} + Q_{beads}$  in  $\mu\text{l}/\text{min}$

## SPECIFICATIONS

<b>Chip Characteristics</b>	PDMS chip for water in oil droplets 3 inputs / 1 output 23 devices per chip
<b>Tubing Compatibility</b>	1/32 tubing compatible
<b>Droplet Characteristics</b>	50 $\mu\text{m}$ -150 $\mu\text{m}$
<b>Operating pressure</b>	0-2bar
<b>Burst pressure</b>	5 bar
<b>Wetted materials continuous phase</b>	PEEK, PDMS, Glass
<b>Wetted material dispersed phase</b>	PEEK, PDMS, Glass