

Revolutionizing Single Cell Biology

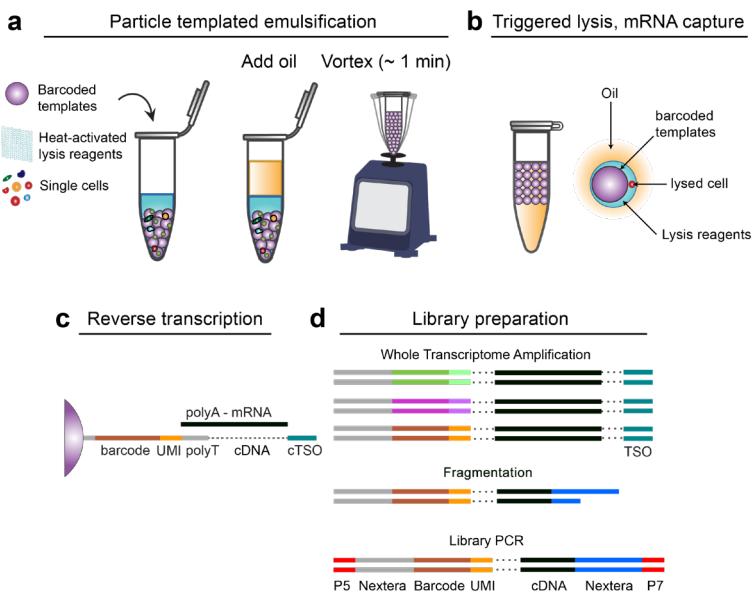


Single-cell RNA sequencing (scRNAseq) has enabled new insights into the complexity of cell populations in many areas of biology. However, not everyone can access or afford the technology as it stands today.

The PIPseq Difference: Pre-Templated Instant Partitions

- Droplet-based microfluidic systems, while highly automated, are complex and expensive instruments, designed to handle well-behaving sample types in a standard way. Samples that are difficult to prepare, have few cells or need special handling are often lost or recovered in low yield.
- Array-based systems are gentle on cells but work best for certain input cell numbers and sizes and are costly and laborious to scale to larger studies.
- Combinatorial barcoding enables higher throughput studies but can be limited by labor intensive workflows that suffer from loss of yield at each of multiple steps. They are also not cost effective at smaller sample scales.

Fluent's simple benchtop workflow has eliminated the need for special instruments, limited inputs, and extra steps



- Flexibility to process as many or few samples as you need; many safe stopping points starting after < 10 min of hands-on time
- Cost-effectively scale from simple starter experiments to complex tissue analysis projects
- Kits cover inputs from a few hundred to a few hundred thousand cells
- Compatible with DSP/methanol fixation protocols to collect cells now for later processing
- PIPseeker: bioinformatics software for user-friendly downstream analysis

Only Fluent's PIPseq allows you to expand your experiment in the future

PIPseq is unique among scRNA-seq technologies in that the cDNA generated during reverse transcription remains bound to the Fluent hydrogel beads. That means after initially obtaining your whole transcriptome results, you can follow up later to ask new questions about your sample.

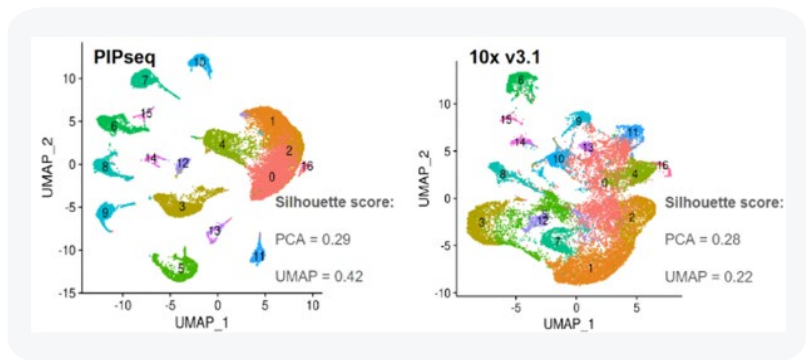
Fluent's Supplemental Enrichment and Amplification (SEA) Kit allows:

- Enrichment of synthetic nucleotide tags (SNTs) that were introduced to label select targets (CITE-seq)
- Enrichment of guide RNA tags that were introduced to modify cellular responses in select targets (CROP-seq)
- Targeted reamplification of the bead-bound DNA templates

Great performance with more flexibility

PIPseq v4PLUS vs. Microfluidic Droplet System on Mouse Brain Nuclei and Cells

| Metric | PIPseq V4.0PLUS | Microfluidics |
|--------------------|-----------------|---------------|
| Transcripts / Cell | 5257 | 3573 |
| Genes / Cell | 2066 | 1892 |
| Captured Nuclei | 8288 | 7377 |



Why PIPseq 3' Single-Cell RNA sequencing kits may be right for your lab

- PIPseq can capture cells that are too big to work in microfluidic or array systems
- PIPseq is ideal for cell types that do not survive the harsh conditions of other methods, such as stem cells, neutrophils and other granulocytes, epithelial cells, protoplasts, etc.
- Fluent's Nuclei Isolation Kit provides a robust platform for single nuclei RNA sequencing (snRNA-seq)

PIPseq 3' Single-Cell RNA sequencing kits

- Challenging sample types, such as neuronal tissue, are compatible with PIPseq because there are no channels or wells to clog
- Using Fluent's fixation kits, cells can be collected in one place, such as a S-3 (BSL-3) lab and processed back in a central lab or core facility
- You can connect and share tips with Fluent's many single-cell users who are working on non-standard sample or cell types