



Single-Cell Sequencing Platform

The Illumina Bio-Rad Single-Cell Sequencing Solution comprises the new Bio-Rad ddSEQ Single-Cell Isolator and Illumina Bio-Rad SureCell WTA 3' Library Prep Kits. Disposable microfluidic cartridges coencapsulate single cells and barcodes into subnanoliter droplets, where cell lysis and barcoding occur. RNA sequencing libraries are

subsequently prepared, sequenced, and analyzed. The result is a comprehensive workflow for robust, flexible, and high-throughput single-cell analysis. The new platform processes hundreds to tens of thousands of cells per day, providing scalable, sensitive, single-cell sequencing with simple yet powerful data analysis.

Bio-Rad Laboratories

For info: 510-741-1000
www.bio-rad.com/ddseq

Single-Cell WGA Kit

The TruePrime Single-Cell Whole Genome Amplification (WGA) kit uses a revolutionary multiple displacement amplification method based on the combination of the recently discovered DNA primase *Thermus thermophilus* (*Tth*)PrimPol and the extremely processive, high-fidelity Phi29 DNA polymerase (Phi29 DNAP) to amplify uniformly total genomic DNA of either a single cell or a few cells. The strand-displacement capacity of Phi29 DNAP allows *Tth*PrimPol to generate new primers on the displaced strands that are extended by Phi29 DNAP, resulting in exponential isothermal DNA amplification.

Expedeon

For info: 44-(0)-1223-873364
www.expedeon.com

Long-Read NGS Library Prep

The FEMTO *Pulse* is designed to meet the needs of next-generation sequencing (NGS) systems analyzing ever-longer DNA fragments. Analyzing fragments over 50,000 base pairs (bp) long and using smaller sample quantities, researchers require an automated system to quantify and qualify their genomic DNA libraries, from initial quality control to final validation. The FEMTO *Pulse*, an automated pulsed-field capillary electrophoresis system, accurately sizes fragments as large as 165,000 bp and measures samples at concentrations as low as 5 fg/ μ L. Runtimes are approximately one hour versus up to 16 hours needed for methods such as agarose-based, pulsed-field gel electrophoresis. These improvements push the boundaries of nucleic-acid detection and fragment sizing, affecting applications such as single-cell nucleic acid analysis, PCR-free preparation of NGS library preparation, bacterial artificial chromosome clone sizing, and exosome analysis.

Advanced Analytical Technologies

For info: 515-964-8500
www.aati-us.com/instruments/femto-pulse

Genomic Services

RAPiD Genomics is a genotyping and data analysis company specializing in flexible, innovative genomic solutions via next-generation sequencing. Through a suite of proprietary genomic technologies, our service platforms can be customized to fit any genomic need. The RAPiD Genomics lab is automated to efficiently, effectively process large projects with accelerated turnaround times, providing a unique opportunity for both commercial and academic clients. Led by a team of world-renowned geneticists, our solutions are applicable for questions focused on single-nucleotide polymorphism discovery and diagnostics, marker-assisted selection, quantitative trait locus mapping, genome-wide association studies, phylogenomics, and more.

RAPiD Genomics

For info: 352-273-2196
rapid-genomics.com/home

Magnetic Separation Stands

Magnetic beads have long been used to isolate nucleic acids as well as recombinant proteins. With the current designs of magnetic stands, these purifications can be problematic, often leaving carryover contaminants when the pellet is disturbed or when the supernatant is not completely removed. The FastGene MagnaStand solves both issues. By securing a pellet (with neodymium magnets) on the sides of the tube walls rather than at the bottom, it allows complete removal of the supernatant without touching the pellet. Additionally, with the MagnaStand 1.5, the vertical position is adjustable, allowing the magnets to be precisely placed on the tube according to the volume used during purification. These versatile stands work with tubes, strip-tubes, and even 96-well plates. Magnetic particle-mediated separation is an important procedure for most next-generation sequencing applications. MagnaStand's ultrapowerful magnetic technology securely removes particles from solution, pulling them out of the way of pipette tips and liquid-handler needles.

Bulldog Bio

For info: 603-570-4248
www.bulldog-bio.com/fastgene_magnastands.html

Exosomal NGS Profiling

Whether you're an exosome expert or brand new to the field, System Biosciences' Exo-NGS (exosomal RNA-seq) services can accelerate your biomarker discovery and profiling. Because we've been working with exosomes for years, we can reliably and reproducibly isolate exosomes from almost any biofluid—from plasma and tissue culture media to cerebrospinal fluid, synovial fluid, and even mouse bronchial alveolar fluid (which does not contain many exosomes). And more importantly for exosome RNA-seq, we routinely generate high-quality exosomal RNA libraries from as little 1 ng of total RNA, which is unparalleled given the challenges of obtaining prime RNA from exosomes. We don't just deliver raw data; we provide analyzed files and typically spend time with you reviewing your results and providing expert insights into your data, a value add-on rare in this industry.

System Biosciences

For info: 650-968-2200
www.systembio.com/exo-ngs

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