Sample Preparation Cartridges and Plates

Waters Oasis PRiME MCX cartridges and 96-well plates selectively retain and concentrate basic compounds while removing up to 99% of phospholipids, using methods up to twice as fast as those for traditional mixed-mode, solid-phase extraction products. With the removal of phospholipids—the most abundant cause of matrix interference—from biological matrices, scientists will simplify their analyses, improve method robustness, and increase instrument uptime, while getting the accurate information they need to make informed decisions. Oasis PRiME MCX is a mixed-mode (reversed-phase and cation-exchange) sorbent that addresses the inherent complexities in quantifying target analytes in biological matrices, such as serum, plasma, whole blood, or human and animal tissue, and food samples including milk, meat, and eggs. No conditioning or equilibration steps are required prior to their use, saving scientists significant time and effort.

Waters
For info: 800-252-4752
www.waters.com/prime

Variable Power LED Reactor

The Uniqsis PhotoSyn is a new, high-power LED light unit that enables scalable flow photochemistry reactions, obtaining yields ranging from milligrams to hundreds of grams per day. It uses a pair of enclosed LED arrays to concentrate light inwards onto a central coil reactor. Each array is composed of 260 individual 1-W blue (455-nm) LEDs, making the unit particularly suitable for photoredox applications. These large-format arrays provide sufficient light to facilitate reactions in coil reactors (up to 60 mL), allowing work at a larger scale. Reactions may be run from 150°C down to subambient temperatures, depending upon the power output required. The variable power supply allows the power output to be adjusted from 10%–100%, making the unit suitable for both small-scale R&D and scale-up applications.

Uniqsis
For info: +44-(0)-845-864-7747
www.uniqsis.com

Light-Sheet Microscope for Cleared Tissue

The ct-dSPIM from Applied Scientific Instrumentation (ASI) is a flexible and easy-to-use implementation of selective plane illumination microscopy (SPIM), which allows for dual views (d) of large samples such as cleared tissue (ct). When used with ASI and Special Optics' new objective optimized for light-sheet imaging of cleared tissue, imaging depth can exceed 5 mm into flat samples. The objective accommodates media refractive indices (RI) from 1.33 to 1.56 (aqueous or organic media). The ct-dSPIM has successfully imaged various cleared-tissue samples from microtome-cut slices to whole mouse brains. As a dual-view system, the roles of the objectives can then be reversed to collect another stack from a different perspective; computationally merging the two stacks yields a 3D dataset with ~2x improvement in axial resolution.

Applied Scientific Instrumentation
For info: 800-706-2284
www.asiimaging.com

Electrofusion and Electroporation System

The ECM 2001+ is a multifunctional electrofusion and square-wave electroporation generator. The ability to generate both AC and DC waves allows for fast, efficient cell fusion in hybridoma production, hybrid-cell formation, and nuclear transfer applications. Electrofusion experiments with the ECM 2001+ are scalable from a few cells in 20-mL microslides all the way up to tens of millions of cells in 9-mL coaxial production chambers. For mammalian transfection applications, this system is powerful enough to yield high transfection efficiencies for difficult-to-transfect sample types, including stem cells, primary cells, mammalian tissues, and embryos. The ECM 2001+ is compatible with the full range of BTX specialty electrodes for in vitro, in vivo, ex vivo, in utero, and in ovo electroporation applications. Applications of the ECM 2001+ include cell fusion, hybridoma production, nuclear transfer, embryo manipulation, mammalian transfection, and CRISPR gene editing.

BTX
For info: 800-272-2775
www.btxonline.com

Micro-Flow Imaging System

Micro-Flow Imaging (MFI) combines the direct-imaging capabilities of digital microscopy with the precise control of microfluidics. What does that get you? High-resolution images with 85% sampling efficiency, more precise counts and sizing with full morphological detail for all subvisible particles in your sample, and the complete confidence that you can accurately identify every possible particle type—from protein aggregates to air bubbles. Images of the sample are captured as it passes through the flow cell's sensing zone. Every particle in every image is then analyzed to create a database of particle count, size, transparency, and morphology (or shape). And you'll have visual verification on the spot, as images are displayed in real time. You can also display results for many samples at once, making it easy to monitor stability and comparability. If you're looking for broader, deeper analysis of your biotherapeutic products, MFI is the particle-analysis tool for you.

ProteinSimple
For info: 888-607-9692
www.proteinsimple.com/mfi_5000.html

CRISPR RNA Libraries

Horizon Discovery's Edit-R CRISPRa arrayed crRNA (CRISPR RNA) libraries offer a powerful tool for drug discovery, pathway analysis, and disease progression studies. Unlike pooled lentiviral screens, Edit-R synthetic crRNA arrayed libraries enable one-gene-per-well investigation, using high-content assays to answer more in-depth biological questions. A CRISPRa-based system for overexpression studies also overcomes many of the shortcomings of early generations of DNA plasmid-encoded gene expression tools. By triggering the endogenous gene's expression, a gene is transcribed in its native form, so researchers can be assured of highly relevant results in their cell system. The Edit-R CRISPRa portfolio includes catalog libraries for popular human and mouse gene families, such as ubiquitin enzymes, transcription factors, and kinases, in addition to druggable gene targets and the whole human genome. Bespoke collections are also available to support researchers working with a specialized gene-target list.

Horizon Discovery
For info: 800-235-9880
www.horizondiscovery.com

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