5-hmC DETECTION KITS

The Quest 5-hmC Detection Kits are the first available products for sequence- and locus-specific detection of 5-hydroxymethylcytosine (5-hmC) within DNA. The optimized 5-hmC Glucosyltransferase enzyme specifically adds glucose to 5-hydroxymethylcytosine in DNA. Unique endonucleases are used to distinguish 5-hydroxymethylcytosine in the glucose-modified DNA. The Quest 5-hmC Detection Kit comprises a streamlined workflow and includes all of the enzymes, cofactors, controls, and DNA cleanup technologies necessary for consolidated, efficient 5-hydroxymethylcytosine detection. DNA modified with the Quest products is ideal for real-time polymerase chain reaction or precise mapping applications facilitated by next-gen sequencing platforms.

Zymo Research Corporation
For info: 888-882-9682 | www.zymoresearch.com

COMPOUND LIBRARIES

Two new compound libraries target areas that are of specific interest to the drug discovery community, Family C GPCRs and protein-protein interactions. The FieldFocus GPCR Library (FFG01) is designed using field- and shape-based overlays of known ligands to generate a novel library that targets the allosteric site of metabotropic glutamate receptors, a subtype of Family C GPCRs. The protein-protein interaction library (MPI01) is designed around a novel scaffold that mimics a “beta-sheet type” hydrogen-bonding pattern, a key motif observed in protein-protein interactions.

BioFocus
For info: +44-1799-533500 | www.biofocus.com

HIGH-PERFORMANCE PIPETTES

Benchmarked against leading pipettes, the Transferpette S pipette provides optimized comfort and performance with a traditional design. The Transferpette S is constructed from innovative composite materials for greatly reduced weight and superior autoclavability. Features include one-handed volume adjustment, simple disassembly for cleaning, and covered ID label. Easy Calibration technology ensures fast in lab calibration adjustments, without tools, for ISO/ GLP compliance. The stroke length is the shortest among premium pipettes—as much as 40 percent shorter, to reduce the chance of repetitive stress injuries. Fixed and adjustable models are available in volumes ranging from 0.1 μL to 10 mL, all of which are compatible with leading brands of tips.

BrandTech Scientific, Inc.
For info: 888-522-2726 | www.brandtech.com

EPIGENETIC MAPPING

The new CpGenome Turbo kit provides rapid bisulfite conversion—a critical first step in mapping the differences in genomic DNA methylation patterns. Aberrant DNA methylation can result in inappropriate activation or silencing of specific genes and is associated with errors in embryonic development as well as the onset of diabetes, cancer, cardiovascular, and other diseases. The kit reliably converts unmethylated cytosines to uracil in 90 minutes, which is twice as fast as commonly used bisulfite kits and reagents. By increasing the throughput of bisulfite modification, the CpGenome Turbo kit allows researchers to examine DNA from more samples in less time. The kit features a proprietary conversion reagent that reduces incubation times while retaining high efficiency, converting more than 99.9 percent of unmethylated cytosines to uracil. The kit is also highly sensitive, requiring as little as 1 ng of DNA. The resulting, modified DNA is pure and ready for epigenetic mapping by sequencing, microarray hybridization, or quantitative polymerase chain reaction.

EMD Millipore
For info: 800-645-5476 | www.millipore.com

HPLC COLUMNS

Kinetex XB-C18 and Kinetex C8 bring the advantages of ultrahigh liquid chromatography performance (UHPLC) within standard HPLC operating pressures to a growing list of applications. Kinetex core-shell technology meets researchers’ need to improve results and increase productivity without large capital expenditures. The new Kinetex XB-C18 provides a unique selectivity, incorporating two iso-butyl side chains at the base of the C18 ligand to reduce secondary interactions with residual silanols. These columns deliver enhanced separation and peak shape of basic compounds under neutral and acidic pH conditions. In comparison studies with other C18 columns, this new Kinetex phase has produced differences in peak elution order and improved separation of co-eluting compounds. The new Kinetex C8 phase meets the United States Pharmacopeia (USP) specifications for Classification Code L7, enabling laboratories using L7 columns to realize the benefits of Kinetex core-shell technology while staying compliant with USP-allowable adjustments. The new Kinetex core-shell columns are available in two particle sizes—2.6 μm and 1.7 μm—and in variety of column dimensions.

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