product notes proteome

Scalpels. DNase- and RNase-free disposable plastic scalpels are available for excising DNA or RNA bands from agarose gels. The shape of the blade enables researchers to cut, lift, and move agarose slices to a microfuge or test tube. Because this process is rapid, DNA and RNA samples have limited exposure to UV light. The blade is composed of clear polystyrene, which will not scratch the screen of a UV transilluminator when a slice is cut from a gel. The scalpels are packaged in nuclease-free plastic.

Bel-Art http://service.belart.com/index.asp

Calcium sensor. The Premo Cameleon calcium sensor can be used in imaging applications and for high-throughput screening protocols. Cameleon is a genetically encoded fluorescent-protein sensor that provides a ratiometric readout in the visual excitation range in the presence of calcium. Minimal interference with normal cellular physiology is experienced with the sensor. Cameleon is designed for applications involving live mammalian cells, such as neuronal and stem cells.

Invitrogen www.invitrogen.com

Software. The EZChrom Elite 3.2 chromatography data system features an improved user interface that includes a navigation pane, chromatogram graph enhancements, and a new appearance. Researchers can specify custom identifiers and analysis parameters on a peakby-peak or injection basis in the sequence table. The software also includes new reporting tools that generate system administrative reports, customize the printing of sequence tables, and automatically export graphical objects.

Agilent www.agilent.com

Bioinformatics. A new version of ProteinCenter is available. ProteinCenter allows researchers to mine proteomics data quickly and removes redundancy. For example, the program organizes accession-number data and removes redundant entries. Sequence information and annotations from all of the major public databases are integrated. The tool also allows scientists to compare data sets and get an instant biological overview of large data sets by adding annotations.

Proxeon www.proxeon.com

Sample preparation. The LPI SamplePrep kit is a disposable product that enables researchers to identify, quantify, and characterize membrane proteins. With the kit, scientists can handle membrane proteins in their natural state. The proteins can be labeled or digested as is typical for proteomics applications. In addition, the proteins can be analyzed by LC/MS.

Nanoxis www.nanoxis.com

Nanofluidic workstations. The BioRAPTR workstation is an automated, noncontact dispenser for 384-, 1536-, and 3456-well plate formats. It delivers precise and accurate dispensing across a low-volume range of 100 nL to 60 μ L without cross-contamination. The PicoRAPTR features an 8-tip piezo head and dual-plate carrier stage for high-speed aspiration and pipetting ultralow volumes of 1 nL to 100 μ L. In various configurations, the PicoRAPTR workstation provides the ability to complete spotting, compound formatting, dose–response for cell-based assays, and SNP assays.

Beckman Coulter www.beckman.com

Cell lines. The ReNcell lines are the only immortalized human neural somatic stem cell lines on the market. The cells can be used to monitor the development of neural pathways. Two cell lines and media are available. The cells can readily differentiate into neural cell types and will replicate indefinitely. Markers found in normal cells also are found in these cells. Therefore, results from ReNcell lines are likely to be biologically relevant.

Millipore www.millipore.com

LC. Peptide Separation Technology columns are based on the proprietary C18 BEH technology particle platform. The new columns are available in the particle size range 1.7–10 μm, lengths of 50–250 mm, and i.d. 75 μm–30 mm. Custom columns also are available. The columns can be used for proteomics projects, peptide mapping of biopharmaceuticals, and characterizing synthetic peptides. The benefits of these columns include improved separation of protein digests, enhanced peptide mapping, efficient glycopeptide separations, and the ability to quantify trace peptide variants.

Waters www.waters.com

Gel electrophoresis. E-Gel CloneWell SYBR Safe gels simplify DNA recovery. DNA is loaded into the top set of wells in the agarose gel, and purified DNA is recovered in the bottom row of wells without the need for additional purification steps. The process is fast and does not require UV illumination. When these gels are used with the E-Gel iBase power system and the Safe Imager Blue-Light Transilluminator, researchers can safely watch DNA bands migrate through the gel.

Invitrogen www.invitrogen.com

Software. Advanced Protein Modeling software is now available as an optional component of the Sybyl 7.3 product line. The software includes methods for homologue identification, sequence alignment, and interactive comparative protein structure modeling.

Tripos www.tripos.com

Cell removal. The Cell Lifter can be used to scrape cell lysates and remove tissue cultures from dishes. The chiseled, angled blade is narrow and compatible with 35- and 60-mm culture dishes. The Cell Lifter is made of polypropylene for chemical resistance and easy cleaning and autoclaving.

Bel-Art http://service.belart.com/index.asp

RNA. The LabelIT miRNA kit provides one-step chemical labeling of miRNA samples with Cy3 and Cy5 fluorophores. This chemical process is more reproducible and results in more uniform labeling than enzymatic processes. Subfemtomole amounts of miRNA can be detected when this kit is used. miRNA from all organisms can be labeled.

Mirus www.mirusbio.com

Cell culture. The BioStation CT is a fully integrated cell culture observation device and monitoring system. Researchers with minimal microscopy experience can use the platform to image cells locally or remotely over a public or private network. The BioStation CT provides consistent environmental control of temperature, humidity, and gas concentration. A CCD camera is included in the system, so that researchers can obtain time-lapse multichannel images that can be easily stored.

Nikon www.nikonusa.com