



Affinity Chromatography

Product: CaptureSelect affinity ligands

Applications: Antibody-based separations

Features: BAC BV has teamed up with both Life Technologies and GE Healthcare to supply them with CaptureSelect antibodies for use as chromatography ligands. Life Technologies has launched a 0.1- to 7.9-mL range of POROS columns for analytical chromatography for IgG, IgM, human serum albumin fusion proteins, and antibody fragments containing κ or λ light chains. GE Healthcare has added LambdaFabSelect for GMP purification of antibodies and fragments that contain λ light chains.

Contact **BAC BV** www.bacbv.com, **GE Healthcare** www.gehealthcare.com, and **Life Technologies** www.lifetechnologies.com/poros/captureselect



Electronic Meters

Product: SevenCompact meters

Applications: Benchtop monitoring of charge-based parameters

Features: Mettler-Toledo's SevenCompact line of benchtop meters for measuring pH, ion concentration, oxidation reduction potential (ORP), or conductivity includes two new universal units. The pH/Ion S220 meter measures pH, ORP, and ion concentration; the Conductivity S230 meter measures conductivity, salinity, resistivity, and total dissolved solids. Security options help with good laboratory practice (GLP) compliance, and meters can connect to a broad range of peripherals.

Contact **Mettler-Toledo, Inc.** www.mt.com/SevenCompact



Disposable Containers

Product: PharmaTainers

Applications: Storage and transport of bulk vaccines, biopharmaceuticals, culture media, and other biomaterials

Features: Cellon's radiation-sterilized PharmaTainer products are molded from medically approved resins in 125-mL to 20-L sizes at an ISO class 5 facility. These "second-generation" single-use containers are packaged with three layers of poly wrapping to facilitate delivery into cleanroom areas. The innermost layer is vacuum sealed to provide tamper evidence and ensure an intact sterility barrier. Each container is printed with a unique serial number, batch number, expiration date, and machine-readable data matrix for traceability.

Contact **Cellon SA** www.cellon.lu

Lysing Agent

Service: CellPrime recombinant human lysozyme

Applications: Protein recovery from bacterial production systems

Features: EMD Millipore's CellPrime lysing agent increases recovery efficiencies in biopharmaceutical production from micrococcus and *Escherichia coli* bacteria fivefold over animal-derived lysozymes. This recombinant human lysozyme improves lot consistency, as well. It comes in 1-g, 10-g, 100-g, and 1-kg package sizes. The product can be used in biopharmaceutical production processes, diagnostic applications, and in life-science research.

Contact **EMD Millipore** www.emdmillipore.com/lysozyme

Membrane Ultrafiltration

Service: Synkera ceramic membranes

Applications: Ultrafiltration for analytical and bioprocess separations

Features: With NIH funding, Synkera develops ceramic ultrafiltration membranes with monodisperse pores for a number of applications. The membrane architecture provides for sharp and controllable molecular weight cut-offs (MWCOs), reduced fouling, and high flux. Filters come in a range of formats and highly reproducible, narrowly distributed pore sizes, with MWCOs from <5 to >300 kDa. Uniform pores on a smooth surface reduce fouling, and the material is immune to organic solvents, with thermal stability ≤ 600 °C. These mechanically durable, abrasion-resistant membranes are biocompatible and do not leach.

Contact **Synkera Technologies, Inc.** www.synkera.com

Host-Cell DNA Monitoring

Service: MagNA Pure LC 2.0

Applications: Quality control

Features: Clearance of host-cell DNA is essential to quality control of therapeutic proteins and antibodies. Roche's MagNA Pure LC 2.0 system can be used for automated monitoring of host-cell DNA clearance during capture and polishing steps in downstream processing. The system provides high DNA recovery rates and subsequent qPCR with a LightCycler 480 real-time polymerase chain reaction instrument. Validation data reported at the link below suggest that the automated sample-preparation system can reduce analytical bottlenecks during in-process development and QC.

Contact **Roche Diagnostics GmbH** www.roche-applied-science.com/sis/automated/magna_lc/magna_lc_docs/MPLC_AN_4_Pharma.pdf



Filter Capsules

Product: CS/CL capsule filters

Applications: Membrane, microfiber, and depth filtration

Features: Meissner's CS/CL capsule filters can be used independently or integrated into single-use biocontainer/tubing assemblies. Choose from PVDF, PES, PTFE, or PP membranes; glass/PP microfibers; and PP depth filters. Connection options include sanitary flanges, hosebarbs, and male-female fittings. Vent and drain options include sanitary valves and Luer ports with caps. Users can specify effective filtration areas from 0.09 m² (1 ft²) through 0.19 m² (2 ft²). Download a catalog at the address below.

Contact Meissner Filtration Products, Inc. www.meissner.com/products/smallflow/capsules.asp



Product Development

Service: Contract development and manufacturing

Applications: Clinical- and commercial-scale complex biologics

Features: Therapure Biopharma specializes in biologics development, scale-up, and manufacturing. At its 130,000-ft² CGMP facility in Toronto, Ontario, Canada, the company offers cell-line, process, and analytical development; product manufacturing and testing; and aseptic fill-finish and lyophilization. It has >20 years of experience working with mammalian and primary cell cultures, whole blood, and plasma sources.

Contact Therapure Biopharma
www.therapurebio.com



Process Centrifugation

Product: UniFuge single-use centrifuge

Applications: Bioseparations

Features: Carr Centritech (a PneumaticScaleAngelus brand) offers a gamma-irradiated, single-use centrifuge module for low-shear harvesting from mammalian and insect cells. UniFuge units minimize debris by leaving cells unlysed — enabling cell recovery and centrate clarification. Modules can be tube-welded to customer-specified single-use bioreactor connections. Feed is gently pumped to the module, where cells settle to the outer radius and clear supernatant is discharged continuously. An automated controller stops the rotor and discharges cells when they fill the module, and the cycle repeats until a full bioreactor volume is processed.

Contact PneumaticScaleAngelus
www.carrcentritech.com

Rinsing for Reuse

Product: TerraSpray rinse station

Applications: Cleaning processes

Features: Terracon's fully nonmetallic rinse station efficiently rinses laboratory and process carboys and other vessels. An operator places a container upside down on the station and activates a fluid-driven rotary spray nozzle. Different fittings, spray-ball styles, pumps, and work-surface heights are available. This presents a cost-effective alternative to stainless-steel systems for midsize facilities, and it uses a standard plumbing connection. The TerraSpray station handles all vessel sizes ≤50 gallons (200 L) with a drain feature that prevents slippery floor hazards. The company also makes custom special-purpose plastic tanks and vessels for a number of process industries.

Contact Terracon Corporation
www.terracon-solutions.com

DNA Purification

Product: Lysate Direct PhyTip columns

Applications: DNA analysis and small-volume processing

Features: PhyNexus has adapted its protein purification columns for DNA purification from bacterial cell pellets. Lysate Direct PhyTip columns provide for high-throughput (up to 96 at a time) automation of plasmid DNA purification directly from crude lysates without problems from cell debris and precipitates. Get ≤16 µg of transfection-grade, endotoxin-free DNA from 1–5 mL bacterial cultures using a PhyNexus MEA, Tecan Freedom Evo, Beckman FX, Caliper Sciclone/Zephyr, Dynamic Devices Oasis, or other liquid handling system. No filtration or centrifugation of lysate is required. Eliminate manual processing steps in plasmid DNA purification.

Contact PhyNexus, Inc.
www.phynexus.com

Liquid Monitoring

Product: SL-630 sensor

Applications: Cleaning processes

Features: The SL-630 noninvasive ultrasonic liquid-level sensor from Cosense requires no calibration for its integral electronics. Peel-and-stick application to the outside of a plastic container ensures no fluid contamination, and the sensors work on any color, size, shape, and transparency of container. Multiple mounting options — disposable, nondisposable, and flange — are options for 2-in. (51-mm) to 8-in. (203 mm) plastic containers with wall thicknesses up to 0.25 in. (6.35 mm). The company customizes options for different diameters and glass or metal containers.

Contact Cosense, Inc.
www.cosense.com