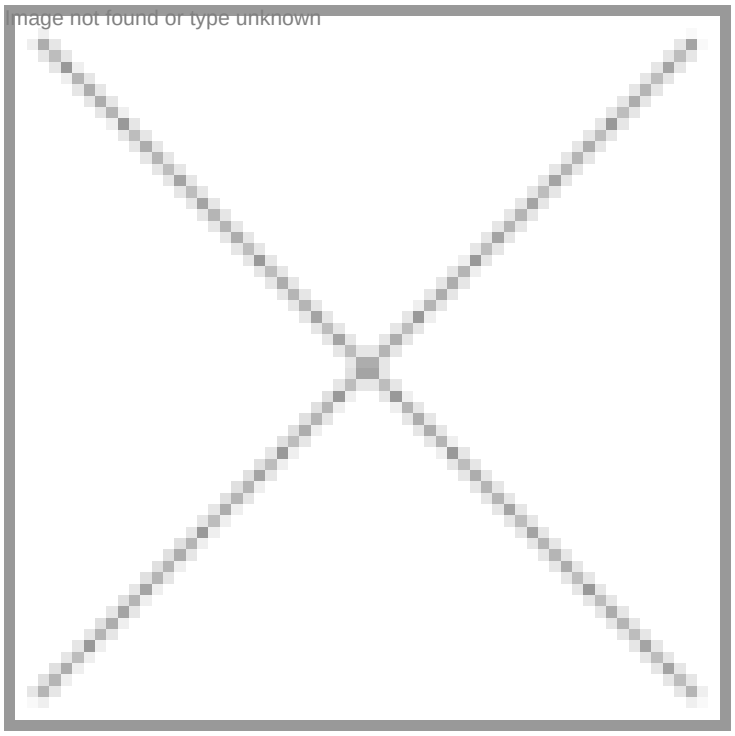
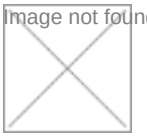
BioSpectrum the business of Bio & Health Sciences

Cell Selection Products from R&D Systems

10 June 2004 | News



Cell Selection Products from R&D Systems



R&D Systems, a US based company, offers both solid and liquid phase kits for the enrichment of specific cell populations by negative selection. Its solid phase product line includes cell enrichment columns while the MagCellect kits constitute the liquid phase products. These products are marketed in India through Delhi-based Biotech India.

Cell Enrichment Column Kits

R&D Systems offers a variety of human, mouse, and rat cell enrichment column kits for the isolation of eosinophils and T cell subsets. These single-use columns are available in several sizes suitable for a wide range of processing capacities. The kits consist of polypropylene columns filled with silica beads coated with selected antibodies. The kit includes all reagents necessary to complete the cell selection process.

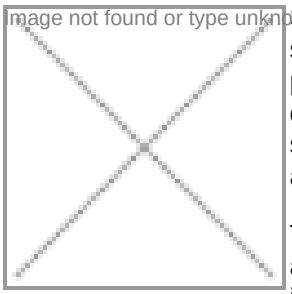
MagCellect Cell Isolation Kits

R&D Systems' new MagCellect products are designed for the isolation of cells in a liquid phase. MagCellect technology is based on the use of ferrofluids or magnetic nanoparticles that have no magnetic memory (superparamagnetic). By virtue of their small size (about 150 nm diameter), MagCellect ferrofluids behave like colloidal particles, easily remaining in solution and allowing for efficient diffusion kinetics in the binding reaction. MagCellect Cell Isolation Kits and MagCellect stand-alone reagents allow fast and easy separation of highly pure cell populations from human, mouse and rat samples without the need

for expensive instrumentation. MagCellect Cell Isolation Kits for the purification of B Cells, CD3+, CD4+, and CD8+ T cells as well as memory and naÃ¯ve CD4+, and naÃ¯ve CD8+ T cells are now available.

For further information, contact: Info@BiotechIndia.com

Stratagene introduces a real-time QPCR system



Stratagene, one of the world leaders in developing innovative products and technologies for life science research, has developed a new PCR system, which is compact, easy to use, and priced for personal use. The new Mx3000P real-time QPCR system is the first high-performance, low-cost quantitative PCR instrument ideal for both the experienced researcher and the QPCR novice. This system combines four-color optics with excellent reproducibility to make high quality results affordable for routine data analysis research.

The instrument is used in laboratories worldwide for academic research and commercial applications including gene expression analysis, microarray validation, viral and bacterial identification and resistance markers, genetically modified organism (GMO) testing, and SNP/allele discrimination. It can be used with all PCR chemistries.

The complete range of Stratagene products are now available in India at Imperial Biomedic in Chandigarh.

Salient Features

- Four channels with customizable filters
- Multiplex upto 4 targets in the same sample
- Open platform supports all fluorescent chemistries
- Precise temperature control and rapid cycle time for fast, accurate results
- Most powerful software available
- 96-well format for plates and tubes
- Optimized for use with Stratagene's Brilliant QPCR reagent kits

For further details, contact: Imperialbio@rediffmail.com

Centri Sep introduced in Indian Market

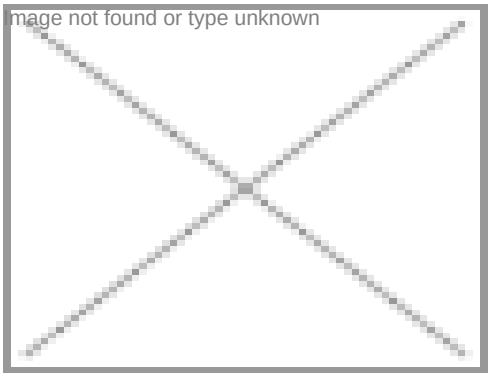
Centri Sep columns, developed by US-based Princeton Separations are used for the fast and efficient purification of large molecules (proteins, nucleic acids, complex carbohydrates, etc.), from small molecules (nucleotides, buffer salts, etc.). In India, Axygen Scientific markets this product.

Each Centri Sep unit consists of a specially fritted microfuge tube, dry gel, a wash tube and a sample collection tube, all specifically designed for this purpose. The Centri Sep gel provides excellent recovery of DNA fragments with sizes greater than 16 base pairs or 25-mer, while removing more than 98 percent of salts, NTP's and other unwanted low-molecular-weight impurities.

The column gel is hydrated with either reagent-grade water or a suitable buffer of choice, and spun in a microcentrifuge or swinging-bucket centrifuge to remove the intersititial fluid. The sample is then applied to the column and spun again resulting in a purified sample through removal of low-molecular-weight components exchanged into the buffer of choice.

For further details, contact axygennt@rediffmail.com

Educational software suite from Mascon



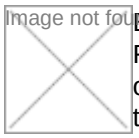
EXOME-ED is the first and probably the only educational software suite for academicians engaged in biotechnology/bioinformatics education.

The scarcity of trained bioinformaticians has generated a pressing need to equip biologists with computational tools and techniques, which in turn has given rise to the need of educational software in this field, which is easy to understand and content rich. This is a unique product developed in India and has been accepted by academicians and scientists in leading research and teaching institutions as an optimal teaching aid.

EXOME-EDâ„¢ provides the flexibility of a CBT (Computer Based Training) tool and is very effective for bioinformatics educational needs. The software is a not only an excellent medium for teaching concepts of molecular biology and bioinformatics but also a powerful tool for researchers who analyze huge volumes of data to arrive at conclusions faster than ever before.

For further details, contact: www.masconlifesciences.com

Tech innovation in Flow Cytometry from BD Biosciences



BD Biosciences, a segment of BD (Becton, Dickinson and Company) announced the release of BD FACSCantoâ„¢ flow cytometer, an efficient, easy-to-use and powerful benchtop analyzer. It supports a full range of research applications in immunology, cell biology and drug discovery. This system incorporates many technological advances developed in the BDâ„¢ LSR II expandable cell analyzer and the BD FACSAriaâ„¢ cell sorter. The flow cytometer has high-sensitivity optics, extremely low sample-to-sample carryover, and rapid processing rates of up to 10,000 events per second. It has high fluorescence sensitivity to resolve dim events, cleaner data due to minimal sample contamination and high processing speed. The BD FACSCantoâ„¢ system overcomes obstacles known in rare event analysis and in functional studies for low detection ranges.

In addition, fluorochromes have been validated by BD Biosciences for users and the fluidics cart holds all fluids necessary to operate and maintain the BD FACSCantoâ„¢ system. It facilitates automated cleaning, startup and shutdown routines.

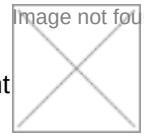
For further details, contact: bd_india@bd.com

Agilent to introduce ion trap mass spectrometer

Agilent Technologies Inc. will introduce a flagship ion trap mass spectrometer (MS) that is four times more sensitive than its predecessor. The LC/MSD Trap XCT Plus improves performance in a wide range of applications such as drug development

and biomarker identification for disease research. It incorporates new detector technology and improved manufacturing processes to achieve a sensitivity specification of 250 femtograms for reserpine.

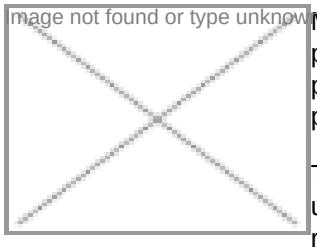
Ken Imatani, product-marketing manager for Agilent's ion trap mass spectrometers, said, "Our goal is to continually increase the sensitivity and resolution of our ion trap products. There is no need to give up the inherent advantages of nonlinear ion trap technology to achieve sensitivity."The LC/MSD Trap XCT Plus is expected to be incorporated into Agilent solutions for high-throughput protein identification and characterization. It is expected to be available in July 2004.



Agilent also introduced its LC/MSD Trap Security Pack 1.0 software for the Agilent ion trap MS family. The software supports compliance with US Food and Drug Administration 21 CFR Part 11 criteria and associated Good Laboratory Practice and Good Manufacturing Practice regulations. The software facilitates the use of Agilent ion trap mass spectrometers in drug discovery and development as well as other regulated processes.

In addition, Agilent offers system validation services to ensure the accuracy and reliability of Agilent ion trap mass spectrometers, including installation qualification (IQ) and operational qualification/performance verification (OQ/PV).

Millipore announces sample preparation syringe filters



Millipore announced the availability of its 33 mm Sample Preparation Millex syringe filters with low-protein-binding Durapore® membrane. The filters are optimized for preparing 10 to 100 ml of protein-containing aqueous and mild organic solutions prior to instrument analysis, such as high performance liquid chromatography (HPLC).

The new syringe filters have almost 20 percent greater surface area than standard 25 mm filter units to deliver faster flow rates and higher throughput. In addition, the increased surface area reduces the pressure required to easily pass a solution through the syringe. The units also have a high operating pressure of 100 psig (10 bar) that allows solutions to be filtered rapidly. The 33 mm Sample Preparation Millex filter units are available in 0.20 um and 0.45 um pore sizes, which remove the fine particles that can prematurely plug chromatography columns.

For further details, contact: millipore@bom7.vsnl.net.in

Cambrex releases new Renal Cell Model

Clonetics® Renal Epithelial Culture Model developed by Cambrex re-creates human renal tubular function in an in vitro environment. The model consists of primary epithelial cells that were isolated from human renal cortices and seeded on extracellular matrix-coated polyester membrane inserts, which allow for bi-compartmental (apical and basal) exposure to culture medium. Isolation and culture parameters (e.g., culture medium, matrix coating protocols, cell seeding density) have been optimized for the development of a functional renal tubular epithelial monolayer as assessed through specific markers.

The system can be used in early stage ADME-Tox screening assays to demonstrate toxicity of test compounds to the kidney. The cells are sold as live Renal Epithelial Cells of cortical origin, offered as confluent monolayer of cells on a Transwell® membrane.

For further details, contact: vivek.varma@cambrexindia.com

BARC develops biphasic medical electroporator

Bhabha Atomic Research Center (BARC) has developed a novel bio-medical electroporator for efficient, easy and rapid delivery/insertion of bio-molecules, drugs into animal and in vitro experimental systems for drug delivery, transfection and gene therapy. It operates by inducing cell electroporation. It generates pulses of amplitude +/-450 volts, of 200 and 300 microseconds duration at burst frequency of 125 hz and operates in auto and manual mode. Application of voltage beyond threshold causes polarization of membrane components resulting in membrane permeabilization for exogenous molecules like drugs and DNA. The induced membrane permeability is reversible, provided the magnitude of the generated electric field do not exceed critical limit, beyond which the cell gets irreversibly damaged. Induced pores can remain open from seconds to minutes depending on the type of cell and electric pulse. With recent advancement in circuit and design of the instrument, the technology is rapidly growing for clinical applications of cancer and delivery of genes for various diseases.

For further details, contact: headttcd@magnum.barc.ernet.in