

Lab+Life SCIENTIST



Obscure research can be
the goose that lays the
golden egg

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Hand-operated vacuum pumps

Kartell manufactures hand-operated vacuum pumps (Art 1398) for vacuum filtration or physics experiments. The vacuum pumps are manufactured to be light and portable and are designed for pulling a partial vacuum of up to 625 mm Hg.

The pumping rate is 15 mL per stroke and the product includes a built-in vacuum release valve. The vacuum hand pump can be used as a pressure pump by transferring the release valve cap to the vacuum port. The nozzle fits to 6 mm ID tubing.

The company's hand-operated vacuum pumps are also available with vacuum gauges (Art 1399).

Sieper & Co Pty Ltd
www.sieper.com.au

Premade stable cell lines

GeneCopoeia carries a comprehensive suite of premade stable cell lines. Each of the stable cell lines is provided in a number of widely studied cancer cell lines, providing useful tools for studying cancer properties and development of effective therapies.

CRISPR-Cas9 Stable Cell Lines are available premade in human cell lines H1299, HEK293T, HeLa and A549, and mouse cell line Neuro2a. They are stably integrated into the human AAVS1 and mouse ROSA26 'safe harbour' sites.

Luciferase+GFP Dual Labeled Cancer Cell Lines express high levels of luciferase and GFP. They offer sensitive, non-invasive detection of cancer cell growth and progression in vivo.

GFP Labeled Cancer Cell Lines are suitable for in vivo tumor monitoring without the need for substrate perfusion. They can also be used for in vitro visualisation and immunocytochemistry.

Cell Structure Related Stable Cell Lines stably express cell structure-related proteins, fused in-frame to RFP.

United Bioresearch Products Pty Ltd
www.unitedbioresearch.com.au

Flow cytometer with green laser

MilliporeSigma has expanded its line of Guava easyCyte flow cytometers to include a high-power modulated green laser. The system combines the green laser, higher power violet, blue and red lasers for detecting subcellular particles as small as viruses, low waste volume and a small footprint.

The addition of the 532 nm laser expands the detection capabilities of the instrument to enable simultaneous detection of multiple fluorescent proteins. It allows users to analyse heterogeneous biological tissues and systems in a single experiment and offers more spectral choice using fluorescent reagents.

The enhanced optical capability and flexibility has been achieved with no increase in instrument size. Better optical configurations allow for more meaningful analysis and permit a small benchtop footprint. This gives users reduced buffer and sample volumes and reduces waste when compared with sheath-based flow cytometers, according to the company.

Merck Pty Ltd
www.merckmillipore.com

We make ideas flow.
www.burkert.com.au

Can you see it? No? Very good!

The ideal valve for artificial ventilation and dental technology

Small part, big role: The 3/2-way Cartridge Valve 6164 from Bürkert fits in any assembly – and blends in. Easy integration via “Plug & Play” paves the way for a slim build. Once set up, the high-performer delivers lifetime durability.

The 6164 Cartridge Valve:
 Compact, efficient, reliable.



High-throughput mass spectrometer

The SCIEX QTRAP 6500+ LC-MS/MS System achieves improved sensitivity and selectivity over previous-generation systems for small molecule quantitation. It integrates with the BioBA Solution for large molecule quantitation, creating a powerful workflow system for biologics bioanalysis.

The system offers features that improve small and large molecule quant, such as the multicomponent IonDrive Technology with the IonDrive High Energy Detector+ (HED). The increased detection area delivers sensitivity improvements in positive mode ionisation and negative mode ionisation in the low mass region, depending on the analyte.

The system delivers enhanced selectivity without compromising MRM sensitivity. The QTRAP scan function of MS3 (MS/MS/MS) adds an additional level of mass filtering, while the SelexION+ ion mobility technology provides an orthogonal separation prior to mass separation. The SelexION+ system has a 2x increase in ion transmission and offers labs yet another tool for eliminating isobaric background interferences in complex assays, making quantitation in complex samples easier and less time-consuming. The scan functions offered by the system, including enhanced mass scans (EMS), enhanced resolution scans (ER) and enhanced product ion scans (EPI), deliver maximum flexibility and workflow options for researchers whose work extends beyond quantitation alone.

The sensitivity and selectivity delivered by the device is designed to help users see it all — from low mass to high mass compounds, in positive or negative polarity — in a single injection, not only in small and large molecule bioanalysis, but also across applications such as comprehensive food residue monitoring, environmental analysis, lipid analysis and forensic drug screening.

SCIEX Australia Pty Ltd
www.absciex.com

qPCR assays and primer pairs

ExProfile Pathway Gene qPCR Arrays from GeneCopoeia profile the expression of pathway-related genes, which are carefully chosen for their close pathway correlation based on a thorough literature search of peer-reviewed publications.

In each 96-well catalogue array plate, there are up to 84 pairs of All-in-One qPCR primers, which have been pre-validated and deposited in designated wells. In each plate there also are 12 wells of controls for monitoring the efficiency of the entire experimental process: from reverse transcription to qPCR reaction. Every qPCR primer pair from GeneCopoeia is wet-lab validated.

The product is a robust and easy-to-use tool for gene expression profiling. It features uniform reaction conditions for every assay and high amplification efficiency, with no non-specific amplification and no primer dimers.

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2D image analysis software

Image-Pro Premier, by Media Cybernetics, is a 2D image analysis software package that offers intuitive tools that make it easy to capture, process, count, measure, analyse and share images and data. The Image-Pro Premier v9.2 offers 64-bit support, a user-friendly interface and a suite of 2D measurement solutions.

The software's technique for performing automatic measurements is suitable for gathering data from images by segmentation systems. It is used worldwide by thousands of researchers and imaging professionals in a wide range of applications including life science research, pathology, fluorescence imaging, ring analysis and ageing, cell biology, industrial inspection, quality control, particle analysis, forensics, etc.

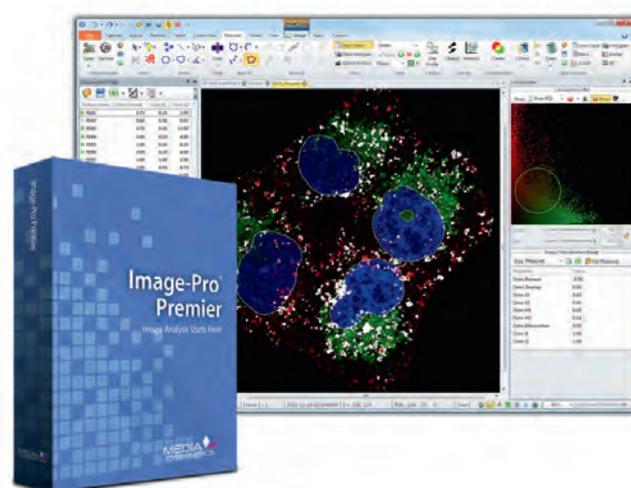


Image-Pro Premier v9.2 is packed with tools that provide the power to process and analyse images. It enables the user to create, download and share custom apps; capture single images and movies; process and enhance images; measure distances and areas; track objects; measure intensity; automatically count and classify objects; automate tasks; and share work.

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