



### Low-Hydrolysate Medium

IS Sf Insect medium from FUJIFILM Irvine Scientific is a serum-free, animal component-free, low-hydrolysate medium formulated for scalability for the consistent growth and yields of proteins, viral vectors, and virus-like particles using baculovirus expression systems (BEVS), in Sf9 and Sf21 (*Spodoptera frugiperda*) cells. There is increasing interest in using insect cells as production hosts for recombinant proteins and viral vectors. Used in conjunction with BEVS, insect cells can produce large quantities of proteins with complex post-translational modifications in short time-frames.

There can be significant differences in growth and protein production between yeast hydrolysate batches, whereas IS Sf Insect's serum-free, low-hydrolysate formula produces less batch variation. IS Sf Insect medium is available off-the-shelf or in custom sizes and packaging on request.

#### FUJIFILM Irvine Scientific

For info: 800-577-6097  
www.irvinesci.com

### Portable Eye Tracker

Tobii offers Tobii Pro Nano: the world's smallest research-grade eye tracker with a proven capability of tracking virtually anyone. Designed for use with portable screens, the unit is ideal for researchers wanting to take their attention-based studies outside the lab environment, or for universities wanting to provide students with a portable research lab as part of their curriculum. Tobii Pro Nano plugs into the USB port of a Windows laptop or tablet and, after a quick calibration, collects gaze data at 60 Hz. The data generated from eye tracking provides unique insights into human behavior and is useful in research fields such as psychology, cognition, and behavioral economics. Other biometric data streams, such as EEG and GSR (galvanic skin response), can be synchronized with the eye tracking data for a deeper understanding of human behavior.

#### Tobii

For info: +46-(0)-8-663-69-90  
www.tobii.com

### GCaMP Calcium Indicators

AMS Biotechnology (AMSBIO) has added a new range of GCaMP calcium indicators (jGCaMP7b, jGCaMP7c, jGCaMP7f, jGCaMP7s) to their portfolio of ready-to-use adeno-associated virus (AAV) biosensor products. Fluorescent protein-based AAV biosensors provide a snapshot of intracellular interactions, specifically active brain circuitry. GCaMP is a genetically encoded calcium indicator (GECI) generated from a fusion of green fluorescent protein (GFP), calmodulin, and M13, a peptide sequence from myosin light-chain kinase. Upon binding of GECI to Ca<sup>2+</sup>, there is an induction of a change in fluorescence signal. This change in signal allows for measurement of the action potentials and other receptor activation events that trigger Ca<sup>2+</sup> fluxes. AMSBIO offers a range of calcium or glutamate biosensor products that come ready-to-use, with a choice of promoter and the ability to include the Cre inducible (FlexON) expression. AMSBIO has packaged these indicators into the most commonly used AAV serotypes (AAV8 and AAV9). Different serotypes are available on request.

#### AMS Biotechnology

For info: 617-945-5033  
www.amsbio.com/aav-biosensors.aspx

### Cell Detachment Solution

Detachin Cell Detachment Solution from AMS Biotechnology is a high-performance alternative to Trypsin/EDTA for detaching adherent cells from in vitro growth vessels. It provides rapid, gentle, and effective detachment of a wide variety of adherent cells, including primary cells, from all commercially available tissue-culture plasticware. Detachin contains protease and collagenase activities in an isotonic, phosphate buffer solution with EDTA. It has been tested successfully on many different primary cells and cell lines, including bone marrow cells, stem cells, fibroblasts, hepatocytes, mouse germ cells, keratinocytes, macrophages, chick embryo cells, neuronal cells, vascular endothelial cells, A-375, BHK, CHO, COS, D54, HEK293, HeLa, L929, M24, MG-63, MRC-5, NIH-3T3, NT2, U-251, and Vero cells as well as Sf9 insect cells and many others. Detachin produces no mammalian or bacterial byproducts, meaning there is no need to wash your detached cells. Offered in 100-mL, 10 x 100-mL, and 6-PAC (6 x 50-mL) sizes, and stable at 4°C for 2 months, Detachin provides an economic solution to labs regularly tasked with cell-detachment protocols.

#### AMS Biotechnology

For info: 800-987-0985  
www.amsbio.com/detachin-cell-detachment-solution.aspx

### Spheroid-Forming Human Hepatocytes

Lonza has further expanded its hepatocytes portfolio characterization with the addition of Verified for Spheroids Human Hepatocytes, which are prescreened for their ability to promote rapid spheroid formation in cell culture. Researchers working in toxicology, disease modeling, and drug metabolism and pharmacokinetics (DMPK) studies can now feel more confident in the performance of Lonza's hepatocytes in their spheroid and other 3D culture platforms. Physiologically relevant in vitro liver model systems play a crucial role in the success of toxicology, disease modeling, and DMPK studies. Conventional 2D hepatocyte cultures offer good short-term models, but tend to rapidly lose typical hepatocyte functionality, making them unsuitable for longer-term studies. To address this challenge, self-assembling liver spheroids generated from primary human hepatocytes are increasingly employed. These spheroids exhibit in vivo-like cell organization, improve the predictability of known clinical liver toxicants, and preserve the viability and functionality of hepatocytes.

#### Lonza

For info: +41-(0)-61-316-81-11  
www.lonza.com

### Thermomechanical Analyzer

The Discovery TMA 450 Thermomechanical Analyzer precisely measures dimensional changes of materials from -150°C to 1,000°C with unparalleled sensitivity and reproducibility. Outfitted with a wide range of fixtures, the TMA 450 handles virtually all sample configurations for testing in expansion, compression, flexure, and tension modes. Operation is simplified with convenient features such as the new app-style touchscreen interface with One-Touch-Away functionality and powerful TRIOS software. Meeting and exceeding industry standards for testing, the analyzer provides data about the material's coefficient of linear thermal expansion, shrinkage, softening, glass transition temperatures, and much more. The advanced options can be used to obtain viscoelastic properties such as the material's stiffness (modulus), damping properties (tan delta), creep, and stress relaxation. The TMA 450 is particularly useful for measuring these material properties locally, especially in manufactured components or assemblies where compatibility of materials is paramount.

#### Waters Corporation

For info: 508-478-2000  
www.tainstruments.com/tma-450

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