

NEWSLETTER XXIX

Innovative Tools for Molecular and Cell Biology

Transfection Solutions for Basic Research & Drug Development

GENOMICS

MoBiTec

TransIT-X2® Transfection Reagent

- Efficient delivery of plasmid DNA, siRNA/miRNA, and CRISPR/Cas9 components
- Peak performance in a broad range of cell types, including hard-to-transfect cells
- Proven and reliable, *TransIT-X2*® allows you to avoid guesswork and get it right the first time

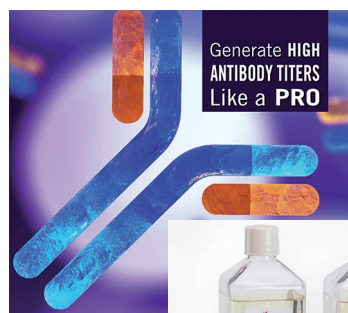


Comprehensive Support !

CHOgro® High Yield Expression System

The CHOgro® High Yield Expression System is the most advanced and cost-effective transient transfection system for high-yield protein production in suspension CHO cells. The second-generation system features the CHOgro® Titer Enhancer which provides rapid, industry-leading protein yields.

- Reach higher antibody titers in seven days - faster than the ExpiCHO
- Same-day transfection, enhancer addition, & temperature shift
- No commercial license required; animal origin-free



Large Scale Virus Production for Preclinical and Early Phase Clinical Trials

The *TransIT-VirusGEN*® SELECT Transfection Reagent is designed to enhance delivery of packaging and transfer vector DNA to suspension and adherent HEK 293 cell types in order to increase production of recombinant lentivirus and adeno-associated virus (AAV). It is specifically made for gene and cell therapy manufacturing.

- Efficient DNA delivery for large-scale production of high-titer viral vectors
- Tested to confirm formulation identity, sterility, low endotoxin levels, and absence of mycoplasma
- Compatible with different recombinant virus platforms and cell culture systems



distributed for **Mirus**®

Sample Preservation

LAB
SUPPLIES
MoBiTec

ProteoSave™ – Low Binding Labware

- Eliminates adsorption of proteins, peptides, antibodies, and cells to the plastic surface
- Maintains protein structure and function
- Resistant to organic solvents, detergents, and heat
- Wide operation temperature range (-80 to 100 °C)



When working with precious samples or small volumes, it is increasingly important to minimize potential interaction between analyte and tube. ProteoSave™ is specially designed for reducing sample adsorption to the plastic surface. The surface is coated with a unique ultra-hydrophilic polymer which prevents protein denaturing and adsorption.

distributed for



STEMFULL™ Centrifuge Tubes

- Surface coated with ultra-hydrophilic polymer
- Minimizes loss of cells due to non-specific sticking
- Ideal for passaging cells
- Effectively used to recover strong adherent cells, e.g., human stem cells

Cell Imaging Consumables

LAB
SUPPLIES
MoBiTec

Imaging Dishes

- 35 mm petri dish with central 18 mm diameter cover glass bottom
- The level of the cover glass is 2 mm lower than the basement level of the surrounding polystyrene dish for defined cell growth and staining
- Innovative tissue culture-treated surface facilitates the growth of most adherent cell types
- Excellent well planarity
- Easy access to the complete imaging area with immersion lenses for better handling and microscope compatibility
- Also available with grid for cell location and counting



Our Imaging Dishes assist for premium performance in high-resolution microscopy of living and fixed cells.

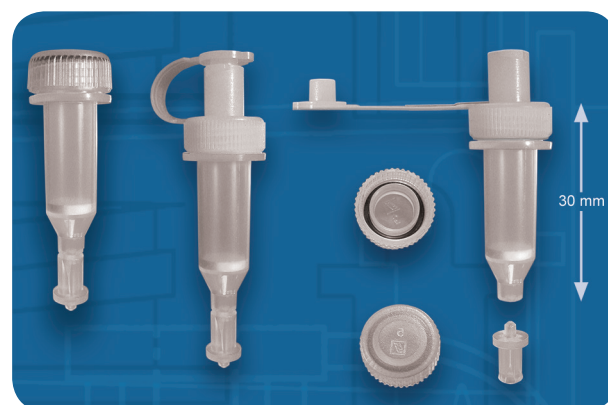
Purification Columns

LAB
SUPPLIES
MoBiTec

Mobicols – The Versatile Lab Columns

The mini columns (up to 800 µl) can be used to make your own spin or gravity flow columns with the matrix of your choice. They are also available pre-filled.

- Fast purification of biomolecules like proteins, antibodies, nucleic acids, etc.
- Useful for size exclusion or affinity chromatography
- Ideal for small sample volumes
- Luer-lock cap is compatible to Luer syringes
- Filters of different sizes and luer adapters are offered to customize the columns to your specific needs
- Microfuge-compatible



Since its introduction 25 years ago, millions of Mobicols have served scientists around the world.

Spin Columns for Nucleic Acid Purification

MobiSpin columns are available with Sephadex® G-50 resin, three different Sephacryl® resins or custom-made with the matrix of your choice.

- For separation of DNA & RNA from small contaminants
- Size-exclusion chromatography columns
- Columns are pre-packed and ready-to-use
- Easy handling: spin, load sample, spin, and collect the purified product (less than 3 min)
- No sample dilution, ideal for small sample volumes
- MobiSpin columns are an integral part of many kits provided by global leaders in the field of bio-analytical testing solutions or used as a complement in laboratory diagnostics kits for clinical routine & research



Recommended by the German Federal Institute for Risk Assessment (BfR) for the Detection of Norovirus in Food

Parkinson's Disease Research

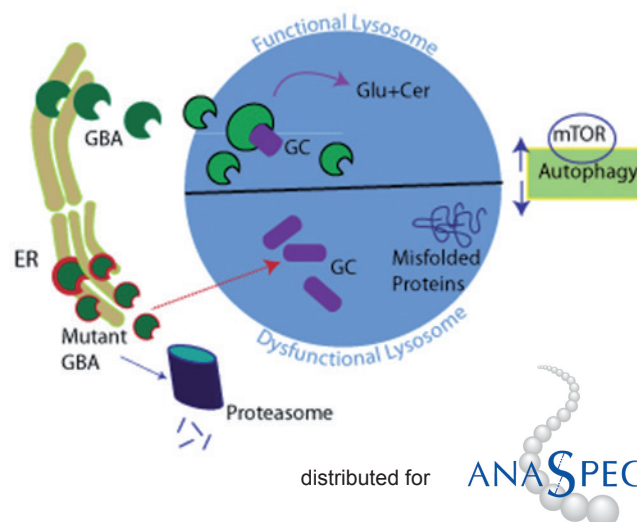
IN VITRO DIAGNOSTICS
AND ASSAYS
MoBiTec

SensoLyte® GBA Activity Assay Kits

Approximately 5% - 8% of people with Parkinson's disease have mutations in the Glucocerebrosidase (GBA) gene. It is supposed that these mutations contribute to the onset of the disease by limiting the ability of GBA to deplete proteins such as alpha-synuclein.

Two SensoLyte® GBA Assay Kits are now available to evaluate GBA enzyme activity.

- Red *Fluorimetric* GBA kit is a one-step homogenous assay that is less prone to background interference and ideal for HTS and compound screens
- Blue *Fluorimetric* GBA kit is specifically validated for activator screening



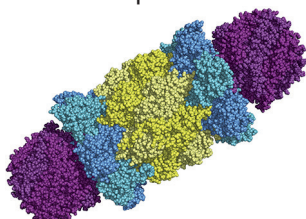
distributed for **ANASPEC**

Ubiquitin-Proteasome System

PROTEOMICS
MoBiTec

Highly Purified Active Proteasomes & More

The 26S proteasome catalyzes the great majority of the protein degradation in mammalian cells, including both the rapid degradation of misfolded and regulatory proteins and most of the slower breakdown of the bulk of cellular proteins. Consequently, proteasome function is essential for protein homeostasis and influences the regulation of most cellular processes.



- Highly Purified Active Proteasomes & Subcomplexes (26S, 20S, and 19S)
- 26S Proteasome Purification Kit for rapid purification of endogenous 26S proteasomes in cells or tissue lysates
- Fluorimetric Proteasome Activity Assay Kits
- Enzymes, Antibodies, and Inhibitors for exploring the Ubiquitin-Proteasome System

distributed for **BPBio**
Ubiquitin-Proteasome Biotechnologies

Human Herpesvirus 6 (HHV-6) ELISA Detection of IgG and IgM

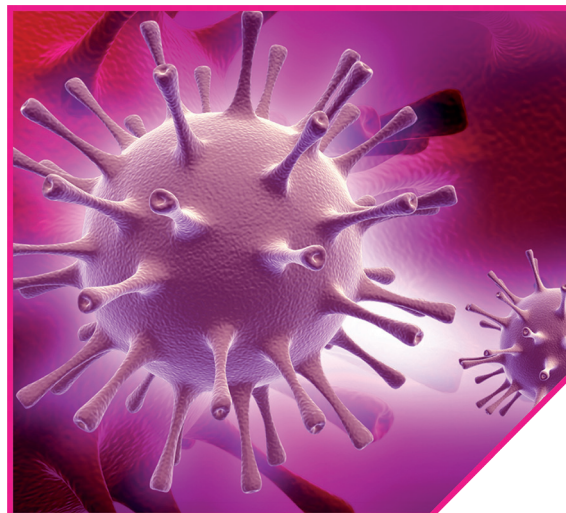
HHV-6 is capable of establishing life-long latency in the host organism with frequent reactivation of the infection in more than 95% of human population over the world. ELISA-VIDITEST anti-HHV-6 IgG and IgM kits are intended for serological diagnosis of diseases associated with HHV-6 infection.

Features

- High sensitivity and specificity
- Samples: serum, plasma, and cerebrospinal fluid
- Ready-to-use controls and HRP conjugate
- Incubations at laboratory temperature
- CE IVD certified

Differential Diagnostics

- Sixth disease
- Acute fever in small children - exanthema, respiratory infection, gastroenteritis, neuroinfection, hepatitis
- Infectious mononucleosis
- Opportunistic infections in immunodeficient patients



distributed for



Lipid-Protein Interactions

Lipid Binding Assays: Simple & Easy

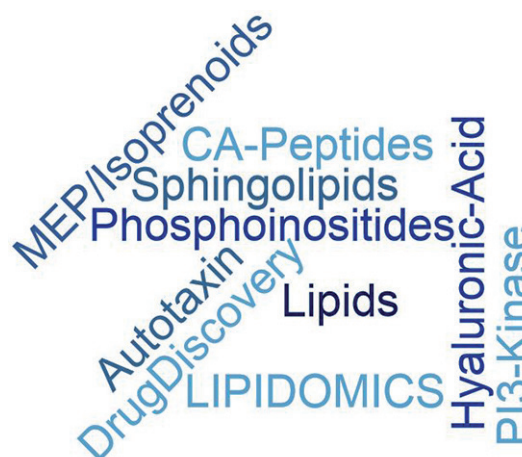
Lipids are fundamental building blocks of biological membranes and serve as intracellular signalling molecules. An equally important feature of lipids is their influence on protein structure and function. Echelon Biosciences has developed a wide range of reagents for investigating lipid-protein interactions.

PIP Strips & Membrane Strips

- Hydrophobic membranes that have been either spotted with phosphoinositides or with important lipids found in cell membranes
- Lipid-protein overlay assays
- Simultaneous screening of multiple lipids
- From Science to Nature to Cell, there are hundreds of publications citing these strips

PolyPIPosomes

- PolyPIPosomes are ready-to-use polymerized liposomes that are ideal for numerous assays, including: protein pull-down, surface plasmon resonance, liposome overlay assay



Lipid Beads

- For protein pull-down experiments
- Determine lipid binding in complex samples, including cell lysates or a mixture of *in vitro* translated peptides
- The beads contain 10 nanomoles of bound lipid molecules per mL of beads, enough for several protein binding experiments

distributed for



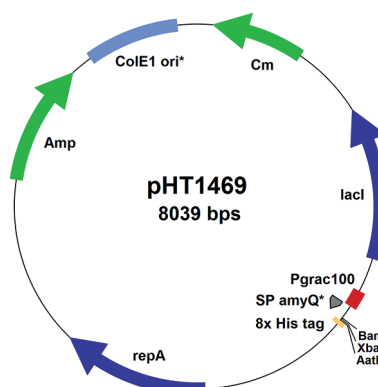
New Vector for High-Level Extracellular Protein Production

Bacillus subtilis has become an increasingly popular host for recombinant protein expression. With its ability to secrete proteins directly into culture media, amenability to medium- and large-scale fermentation, no significant bias in codon usage, and designation by the U.S. FDA as an organism that is Generally Regarded As Safe (GRAS), it's not surprising that the majority of industrially-produced enzymes are expressed in *Bacillus* species such as *B. subtilis*.

With the new pHT1469 expression vector MoBiTec offers now an easy to handle tool for high yield protein production and secretion into the culture medium.

Features

- pHT1469 contains the strong Pgrac100 promoter with improved regulatory elements / induction by IPTG
- Robust, high-yield expression of heterologous proteins
- *B. subtilis* / *E. coli* shuttle vector for convenient cloning
- Protein purification via 8xHis-tag
- Enhanced signal sequence of amyQ for protein export
- Host strain for secretory protein production available: *B. subtilis* WB800N – an eightfold extracellular protease-deficient strain



Imaging Reagents

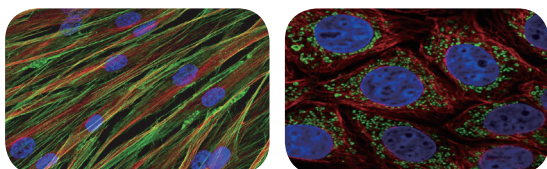
FLUORESCENCE TECHNOLOGY

MoBiTec

Cytoskeleton Stains

The cytoskeleton is an intracellular matrix that supports cell shape and function. The cytoskeleton of eukaryotes has three major components: microfilaments (actin filaments), intermediate filaments, and microtubules. The cytoskeleton plays important roles in organelle transport, cell division, motility, and signaling, making it central to both cell health and disease processes.

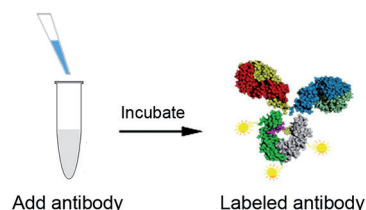
- Phalloidin conjugates selectively label F-actin in fixed and permeabilized cells
- The binding properties of phalloidin conjugates do not change significantly for actins from different species, including plants and animals
- Multicolor selection
- High photostability
- Superior to antibody staining
- Affordable (only 150,- €)



iLink™ Antibody Labeling Kits

These kits utilize amine-reactive fluorophores to covalently attach the label to an IgG antibody of interest. They are optimized for labeling 50-100 µg of antibody per reaction and contain everything you need to perform the conjugation.

- Simple workflow - Add, mix, and ready-to-use
- Fast - Covalent labeling of your antibody in 30 min
- Multicolor - Choose between different dyes
- The new labeling technology provides unprecedented convenience for multicolor immunostaining



distributed for





Companies distributed by MoBiTec GmbH



Clare Chemical Research



COYOTE



We help you discover life



••• For the most up-to-date listing of our supplier companies please visit our website •••



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