

NEWSLETTER XXIV

Innovative Tools for Molecular and Cell Biology

Transfection Solutions

GENOMICS

MoBiTec

Well-Established Delivery Systems for Basic Research and Pharmaceutical Biotechnology

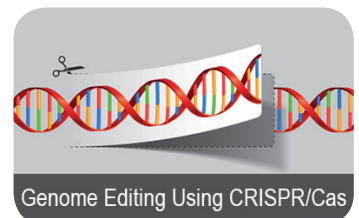
From Stem Cell Therapy to Lentiviral Production
as well as CRISPR/Cas Applications

Features

- Two decades of nucleic acid delivery experience
- Delivery of plasmid DNA, siRNA, miRNA, mRNA, viral RNA, oligonucleotides, and CRISPR/Cas9 components to eukaryotic cells
- Broad-spectrum delivery or cell line-specific transfection
- Huge citations database – over 2,700 published citations
- High transfection efficiency – also in novel genome editing applications
- Low toxicity – for improved cell viability
- Convenient protocols
- Advanced solutions for traditionally difficult-to-transfect cell types
- Budget-friendly

Outstanding Technical Support

- **FREE SAMPLES** – Up to three different transfection products and one electroporation product per laboratory can be requested
- **Reagent Agent** – A tool designed to help you determine the best delivery solution for any nucleic acid into any cell type
- **Comprehensive Guidance** – Citations database, webinars/videos, posters, presentations, and more...



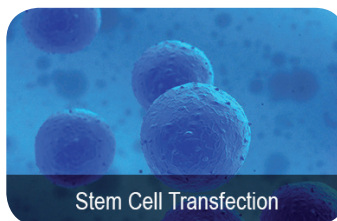
Genome Editing Using CRISPR/Cas



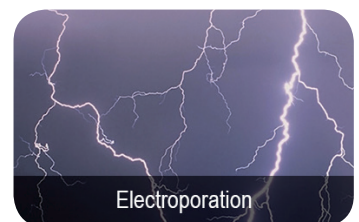
Virus Production



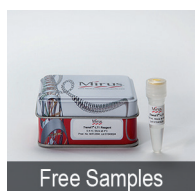
Antibody/Protein Production



Stem Cell Transfection



Electroporation



Free Samples



Reagent Agent®



Citations Database



Product Details

Delivery by

Mirus

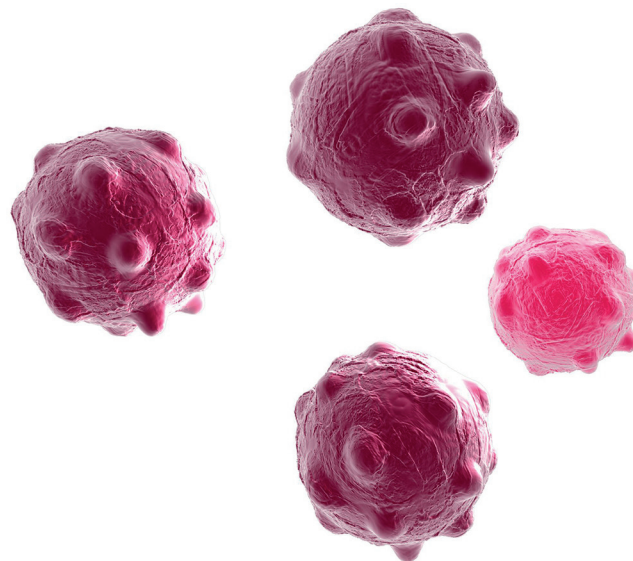
distributed for

ExoCap™ Exosome Isolation and Enrichment Kits

IN VITRO DIAGNOSTICS
AND ASSAYS
MoBiTec

Pre-Conjugated with Target Antibodies

- **Versatile** – ExoCap is designed for serum, plasma, and cell culture media, with optimized protocols for downstream assays
- **Specific** – ExoCap targets specific antigens (CD9, CD63, CD81, or EpCAM) for purification of a defined exosome population
- **Intact** – Intact exosomes can be eluted preserving internal cargo
- **Direct Isolation Possible** – Without any need of pre-enrichment, precipitation, or ultracentrifugation
- **Simple** – Simple workflow, easy-to-follow with minimum hands-on time



Order Information

Order No.	Description
EX-COM-SP	ExoCap™ Composite Kit
EX-C9-SP	ExoCap™ CD9 Capture Kit
EX-C63-SP	ExoCap™ CD63 Capture Kit
EX-C81-SP	ExoCap™ CD81 Capture Kit
EX-EPC-SP	ExoCap™ EpCAM Capture Kit

MBL®

distributed for International Corporation

Selective Detection of Reactive Oxygen Species

FLUORESCENCE
TECHNOLOGY
MoBiTec

Fluorescent Probes to Track Different Parameters in Oxidative Stress

Oxidative Stress

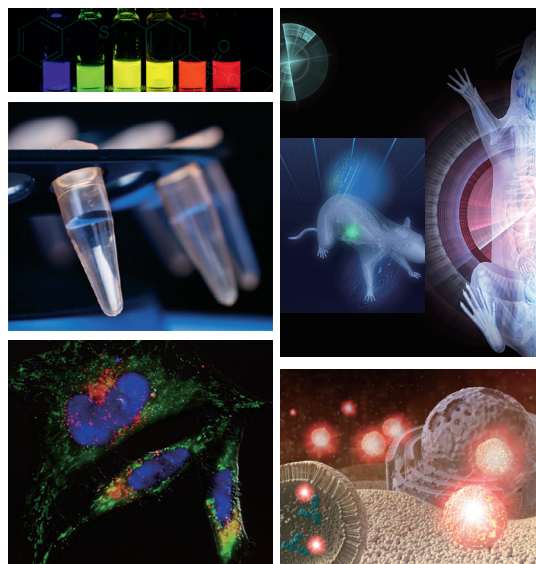
Under conditions of oxidative stress the production of reactive oxygen species (ROS) is dramatically increased, resulting in subsequent alteration of membrane lipids, proteins, and nucleic acids.

Certain ROS have been implicated in various human diseases, including cancer, inflammatory and neurodegenerative diseases, and aging.

In addition, ROS play important roles in cell signaling.

Selective Cellular ROS Detection

- Fluorescent probes for a variety of reactive species:
 - HPF: detection of hydroxyl radical ($\cdot\text{OH}$) and peroxynitrite (ONOO^-)
 - APF + HPF: detection of hypochlorite (ClO^-)
 - NiSPY-3: detection of peroxynitrite (ONOO^-)
 - HySOx: detection of hypochlorous acid (HClO)
 - HYDROP: detection of hydrogen peroxide (H_2O_2)
- High sensitivity and specificity
- For live-cell imaging
- Negligible autooxidation
- Slow photobleaching - suitable for time-lapse imaging



For Life Science Research, Medical Research, Automotive Engineering, Plasma Science, Consumer Electronics, etc.

Order Information

Order No.	Description	Amount
SK3001-01	HPF	1 mg
SK3002-01	APF	1 mg
SK3003-01	NiSPY-3	1 mg
GC3006-01	HySOx	20 μg x 5
GC3007-01	HYDROP	30 nmol x 3

distributed for  **GORYO** CHEMICAL

Fluorescent Biosensors for Live Cell Discovery

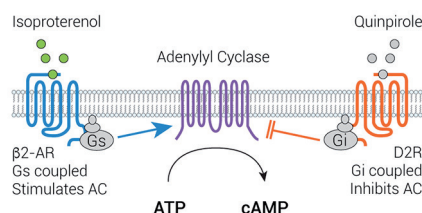
FLUORESCENCE
TECHNOLOGY
MoBiTec

Introducing cADDiS:

Measure cAMP Signaling in Real Time, in the Living Cells of Your Choice!

Features

- Simple and robust assay for Gs and Gi signaling
- Super-bright with big, unmistakable changes in fluorescence ($Z' > 0.85$)
- Genetically encoded fluorescent protein with efficient expression in primary cells, iPSCs, or standard cell lines
- Easy assay steps – No lysis, washing, or special equipment needed
- No need for co-factors like forskolin or IBMX
- Targeted to specific subcellular compartments, including the primary cilium
- Combine red or green cAMP sensors with DAG, Ca^{2+} , or PIP_2 sensors to detect multiple second messengers simultaneously
- Plate reader or microscope compatible – kinetics or dose response



distributed for



Montana Molecular
Fluorescent Biosensors for Live Cell Discovery

Order Information

Order No.	Description	Amount
X0200G-5	Green Gi cADDiS cAMP in BacMam - Trial Kit	5 ml Kit
X0200G-10	Green Gi cADDiS cAMP in BacMam	10 ml Kit
X0200G-30	Green Gi cADDiS cAMP in BacMam	30 ml Kit
X0200G-60	Green Gi cADDiS cAMP in BacMam	60 ml Kit

Probes for Investigating Signal Transduction

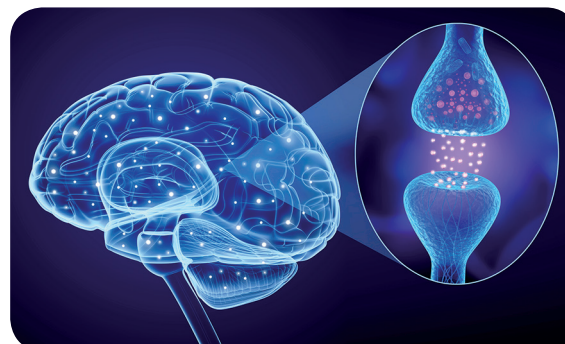
INTERACTION
SCREENING
MoBiTec

New Brochure Available

Features

- Genetically Encoded Fluorescent Biosensors
- Universal Transcreener[®] ADP² Kinase/ATPase Assay
- PI3-Kinase Screening
- Miscellaneous Kinase Assays
- Anti-Lipid & Signaling Lipid Antibodies

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www.mobitec.com!



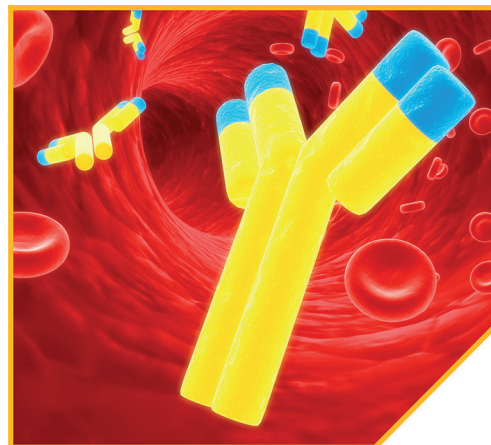
Complement Factor H ELISA Detection of IgG Antibodies

Features

- First commercially available **CE/IVD-certified** ELISA
- High sensitivity and specificity
- Quantitative evaluation
- Incubation at laboratory temperature

ELISA-VIDITEST anti-complement factor H is intended for quantitative detection of IgG antibodies against human complement factor H in serum or plasma.

Factor H is a complement regulatory glycoprotein that is found in human plasma in concentrations of 300-800 mg/L. Autoantibodies that inhibit factor H function cause complement dysregulation and they have been detected in about 10% of patients with atypical hemolytic uremic syndrome (aHUS). Atypical HUS is a clinical syndrome that is characterized by microangiopathic hemolytic anemia, thrombocytopenia and renal failure.



Order Information

Order No.	Description	Amount
ODZ-166	Anti-Complement Factor H	48 Wells

distributed for



Protein Labeling Kits

Europium Labeling Kits:

Conveniently Conjugate Your Proteins for TR-FRET Assays

TR-FRET

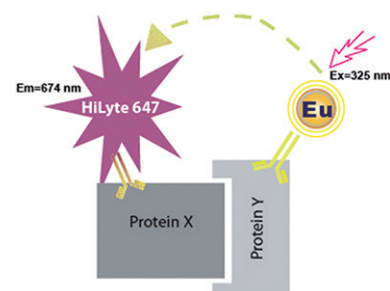
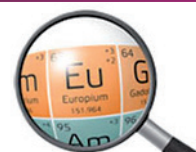
Time-Resolved Fluorescence Resonance Energy Transfer (TR-FRET) involves an energy transfer between two fluorophores in close proximity. It is a combination of Time Resolved Fluorescence (TRF) and Forster's Resonance Energy Transfer (FRET). This method shows reduced background noise and higher sensitivity and reliability than FRET. In TR-FRET the donor molecule is a Lanthanide metal instead of a fluorescent dye. Lanthanide metals, such as Terbium (Tb) and Europium (Eu), serve as energy donors. Their fluorescence is long-lived and characterized by a large Stokes shift providing a high signal-to-noise ratio.

Application

- FRET/TR-FRET substrates for protease activity detection
- Protease-based drug target screening and discovery
- Protein-peptide interaction
- Protein-protein interaction

Features

- Fast labeling
- Stable dye-protein conjugates
- All essential components for conjugation and purification included
- Ideal for HTS



Schematic representation of TR-FRET energy transfer from Eu-labeled donor to HiLyte™ Fluor 647-labeled acceptor.

Order Information

Order No.	Description	Amount
72246AS	AnaTag™ Europium Protein Labeling Kit *Ultra Convenient*	1 Kit
72247AS	AnaTag™ Protein Labeling Kit for TR-FRET *Ultra Convenient*	1 Kit

distributed for



Phosphoinositides

Products

- Comprehensive selection of phosphoinositides for cell signaling research
 - Phosphoinositides (PIPs)
 - Fluorescent PIPs
 - Biotinylated PIPs
- Unique antibodies for phosphoinositides and other key lipids
 - Wide selection of specific PIPs and related cell signaling antibodies
 - Antibodies to rare lipids such as phosphatidylethanol (PEth), a long term alcohol biomarker, and lysobisphosphatidic acid (LBPA or BMP), involved in viral infection
- PIP Mass ELISA to quantify specific phosphoinositides levels in cells or tissue samples
 - Unique PIPn measurement tools
 - PI(3)P, PI(4)P, PI(3,4)P2, PI(4,5)P2, PI(3,4,5)P3

distributed for  **echelon**
www.echelon-inc.com



Phosphoinositides (PIPs) are minor components of cellular membranes but are major second messengers for intracellular communication.

PIPs recruit lipid-binding proteins to specific membranes initiating signaling complexes leading to downstream effects such as cell growth, proliferation, apoptosis, tumourigenesis, cell migration, regulation of exo- and endocytosis, vesicle trafficking, and protein sorting.

Dysregulated PIPn signaling is involved in numerous inflammatory and metabolic diseases as well as in cancer.

GelBox

All-in-One Portable Electrophoresis and Imaging System

Features:

- Gel electrophoresis and imaging camera in a closed system
- Uses disposable gel cassettes
- Mobile connectivity – control device and receive images wirelessly with your smartphone or laptop
- Portable – powered by 12V DC universal power supply or 12V DC battery pack
- Small footprint – 146x146x142 mm (LxWxH)
- Quick – get your results in only 15 minutes

The All-in-One GelBox is a breakthrough in high-speed electrophoresis systems. It integrates a molecular separation block and an electronic imaging system in one device. The GelBox provides the user a complete electrophoresis system to analyze PCR products. The device generates a new idea with a Wi-Fi camera inside which enables a remote control of the electrophoresis procedure and also the possibility of making images.

distributed for  **COYOTE**



Order Information

Order No.	Description	Amount
Gel-1-CB	All-in-One Gelbox	1
Pre-1-CB	Pre-Cast Agarose Gel (13 Wells)	1 Gel



Companies distributed by MoBiTec GmbH

AG SCIENTIFIC
Accelerating Scientific Discovery™



aum
BIOTECH

BellBrook
Labs



cyagen
We help you discover life



EdgeBio

Eurogentec
Experience true partnership



GORYO CHEMICAL

invent
BIOTECHNOLOGIES, INC.



MBL®
International Corporation

Delivery by
Mirus



PROTOBIOS
life sciences

SUMITOMO BAKELITE CO., LTD.

TARGET MOL

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Empowering Research



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



www.mobitec.com

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