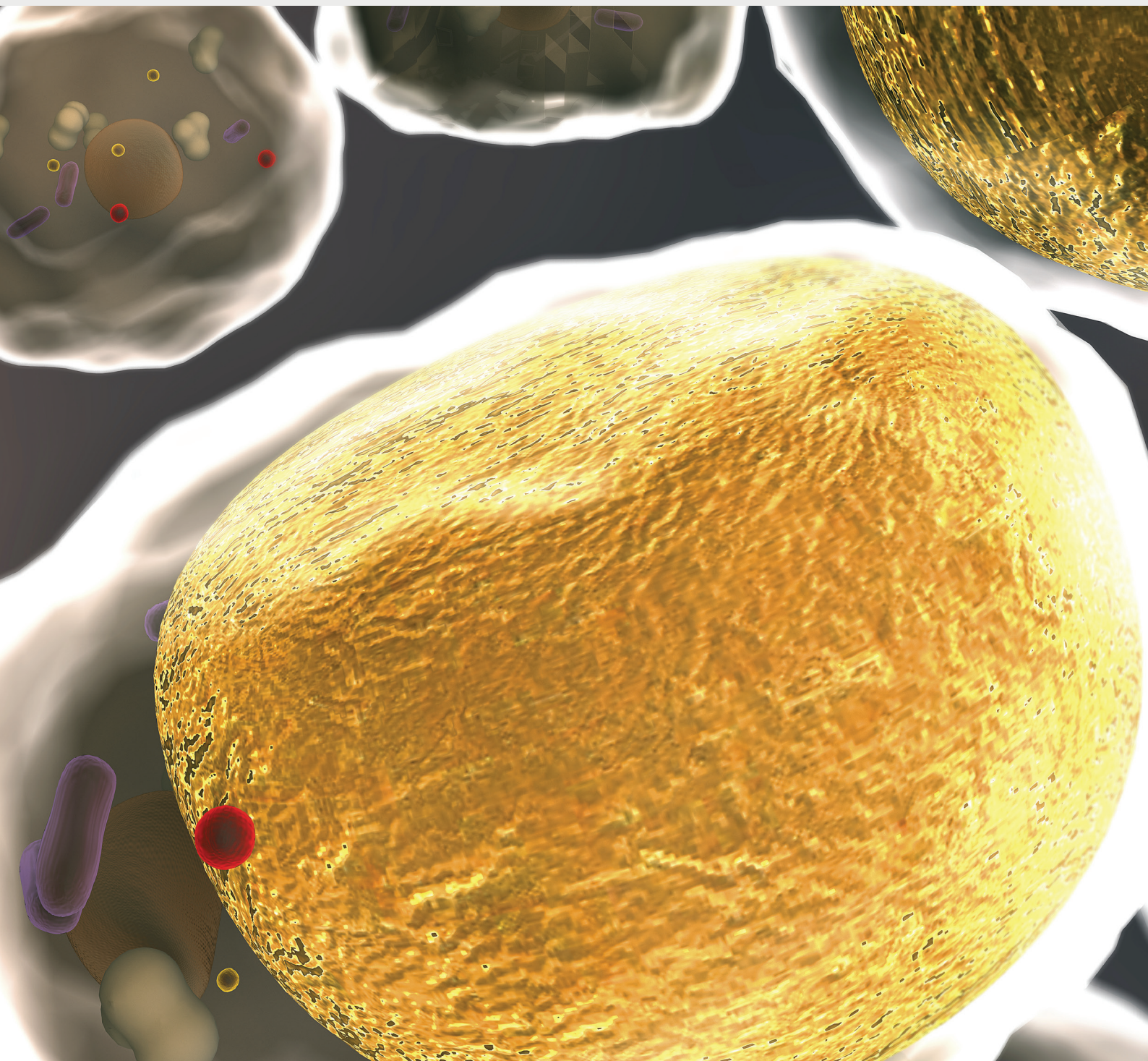




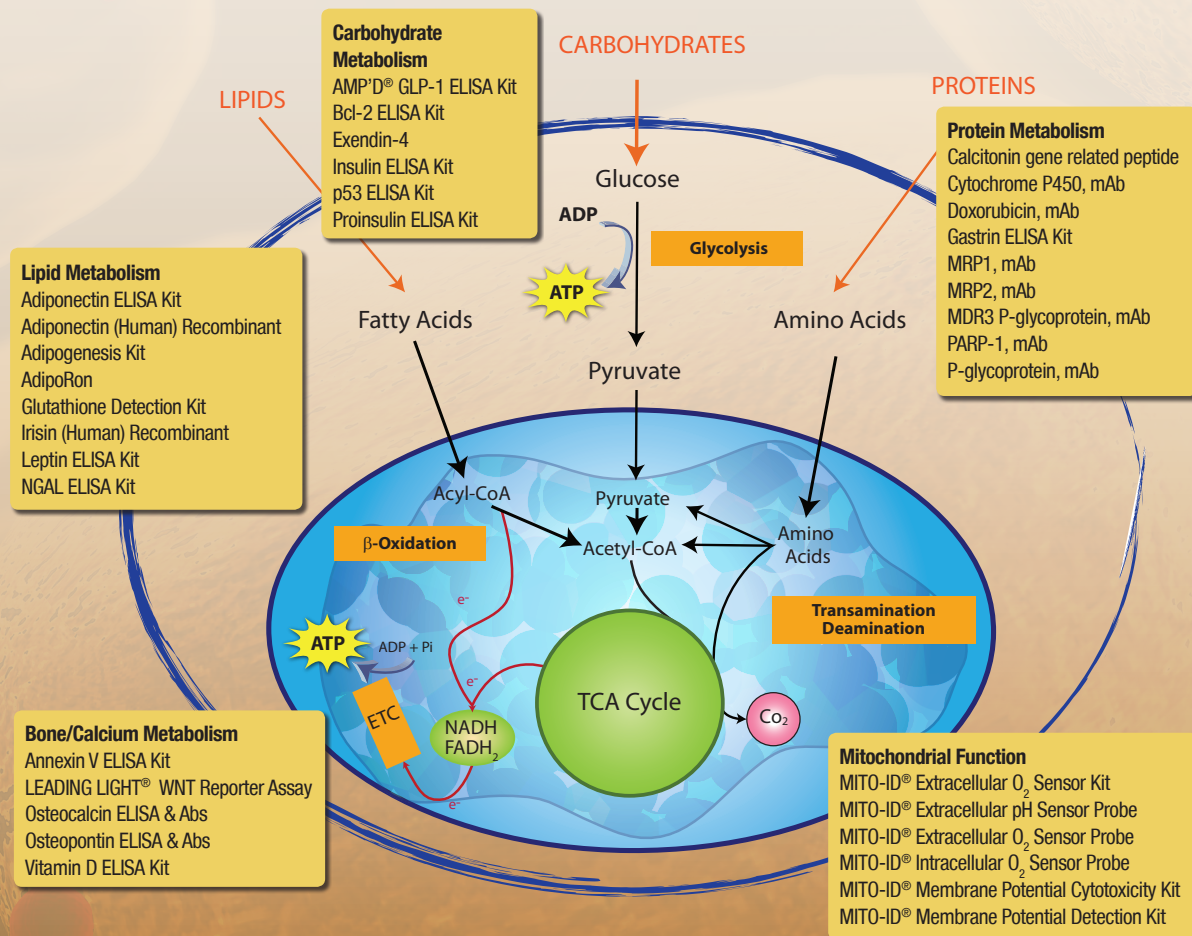
Metabolism

Transform Your Metabolic Research



COMPREHENSIVE TOOLS FOR ADVANCING YOUR METABOLIC RESEARCH

Metabolism refers to a set of chemical reactions which are responsible for transforming carbohydrates, lipids and proteins into energy. These biochemical processes are essential for maintaining homeostasis. Metabolic research focuses on better understanding basic biological mechanisms that regulate metabolism and how they are dysregulated in disorders such as obesity, diabetes, cardiovascular disease, and cancer. A common root cause in these medical conditions is an energy imbalance; better understanding of this disparity will help determine therapeutic strategies. Even though metabolic reactions can be complicated and difficult to quantify, Enzo Life Sciences offers simple and novel solutions to advance your metabolic research.



Cell Analysis & Detection

Enzo's expertise in fluorescent probe chemistry and cellular analysis combine to provide high-quality, flexible detection platforms for immune cell profiling and functional analysis. Our unique CELLESTIAL® assays and widely cited antibodies enable multiplex detection of cellular markers and key parameters of metabolic research.

Immunoassays & Antibodies

As a trusted manufacturer of thousands of widely cited and thoroughly validated ELISA kits and antibodies, we understand quality means delivering sensitivity, specificity, and consistency. With over 300 immunoassay and detection kits, 3,000 antibodies, and a complete set of reagents, Enzo enables sensitive and specific analysis of metabolism biomarkers.

Small Molecule Chemistry

More than 3,000 biologically characterized small molecules and the industry's most diverse collection of compound libraries for predictive toxicology. Our catalog includes hundreds of REDOX compounds, natural products, and bioactive lipids available as ready-to-screen SCREEN-WELL® libraries or as individual and bulk compounds.

DISCOVER, ANALYZE AND QUANTIFY METABOLIC BIOMARKERS

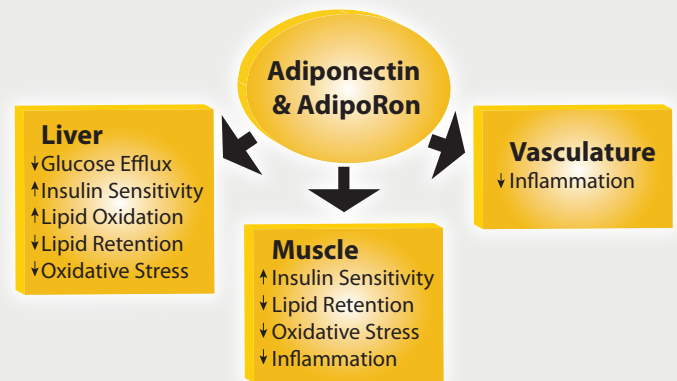
Adiponectin is a protein hormone primarily produced by adipocytes which circulates at high levels (5-30 mg/L) in the blood. Adiponectin modulates a number of metabolic processes and is known to contribute to metabolic pathologies including diabetes, atherosclerosis, and obesity. It has been shown to increase insulin sensitivity and decrease plasma glucose by increasing tissue fat oxidation.

Modulation of Glucose & Lipid Metabolism

Recombinant Human Adiponectin (ALX-522-063)

HMW Adiponectin Delivering Superior in vitro Activity

- Highest activity recombinant adiponectin on the market
- HMW and hexameric species mimic serum adiponectin *in vitro*
- Mammalian cell-derived protein guarantees proper post-translational modifications
- High-purity protein ensures specificity



RELATED PRODUCTS	
PRODUCT NAME	PRODUCT #
Adiponectin (mouse), (recombinant)	ALX-522-059
Annexin V (human), (recombinant) (FITC conjugate)	ALX-209-250
TAPI-1	BML-PI134
TAPI-2	BML-PI135
TNF- α (soluble) (human), (recombinant)	ALX-522-008

Quantify Adiponectin

Adiponectin (human) ELISA Kit (ALX-850-377)

A Rapid, High-sensitivity ELISA Kit for Quantification of Human Adiponectin

- High sensitivity ELISA detects as little as 0.1 ng/mL of adiponectin
- Rapid assay with results in 3 hours for 38 duplicate samples
- Validated for human serum, plasma, CSF, and urine

Adiponectin Receptor Activation

AdipoRon (ENZ-CHM101)

A Novel Small Molecule Adiponectin Mimetic

Adiponectin receptor activation is a promising potential therapy for diabetes and other obesity-associated diseases. AdipoRon has been shown to induce insulin sensitivity, inhibit lipid synthesis and increase glucose metabolism.

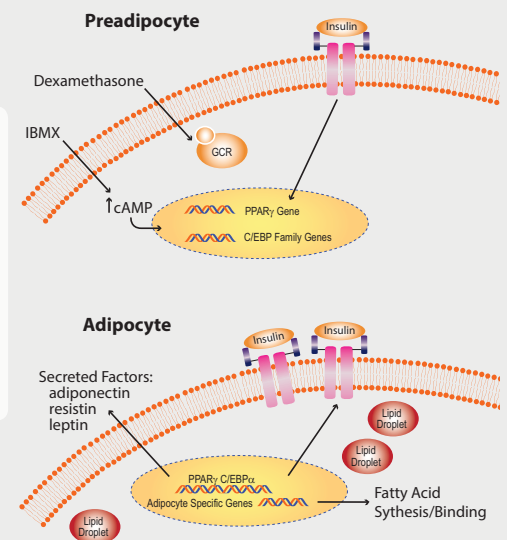
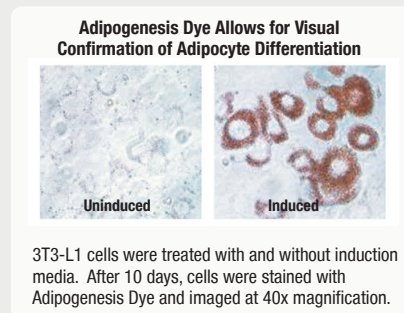
- Orally active making it suitable for *in vivo* studies
- Activates adiponectin receptors: AdipoR1 and AdipoR2
- $\geq 98\%$ pure

Induction & Analysis of Adipogenesis

Adipogenesis Assay Kit (ENZ-KIT103)

Convenient Method For the Enhanced Induction and Detection of Adipogenesis

- Provides optimized reagents for adipocyte differentiation and subsequent colorimetric lipid oil detection
- Contains enhancer solution for the optimal induction of adipogenesis
- For drug-screening and testing agonists/antagonists of adipogenesis



EMPOWER YOUR RESEARCH WITH OUR INNOVATIVE PLATFORMS

Mitochondria, the organelles that generate energy for the cell, have a critical role in the function of a cell. Mitochondrial disease, stemming from dysfunction, can have various effects on the body with conditions ranging from epilepsy, psychiatric illness and autism, to cardiovascular disease, liver/kidney disease, diabetes and cancer. The impact of mitochondria in so many diseases makes them ideal targets for new therapeutics.

Mitochondrial Function

MITO-ID® Extracellular pH Sensor Probe (ENZ-51048)

Efficiently Monitor Glycolytic Activity

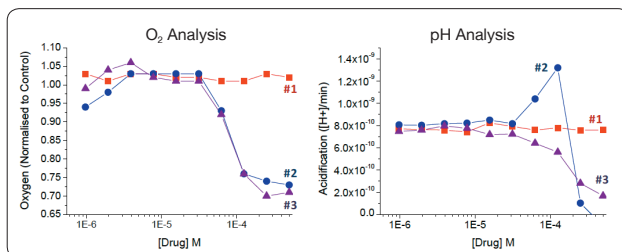
- pH-sensitive probe increases in signal intensity with increasing acidity
- Simple mix-and-read protocol for 96-well microplates

MITO-ID® Extracellular O₂ Sensor Kit High Sensitivity (ENZ-51045)

Detect Mitochondrial Dysfunction Within Minutes of Treatment

- Phosphorescent probe increases in signal intensity with O₂ consumption (↓O₂ levels)
- Amenable to 96- and 384-well microplates for high-throughput analysis
- Multiplex with MITO-ID® pH Sensor Probe to confirm mitochondrial toxicity

MITO-ID® Assays Identify True Mitochondrial Toxicity



Multi-compound screening using MITO-ID® Extracellular O₂ Sensor Kit and MITO-ID® Extracellular pH Sensor Probe. Compound 2 shows a dose-dependent effect on oxygen consumption (decrease) with an increase in acidification representing "True" mitochondrial toxicity.

RELATED PRODUCTS

PRODUCT NAME	PRODUCT #
MITO-ID® Extracellular O ₂ Sensor Kit	ENZ-51044
MITO-ID® Intracellular O ₂ Sensor Probe	ENZ-51046
MITO-ID® Extracellular O ₂ Sensor Probe	ENZ-51047

MMP Loss

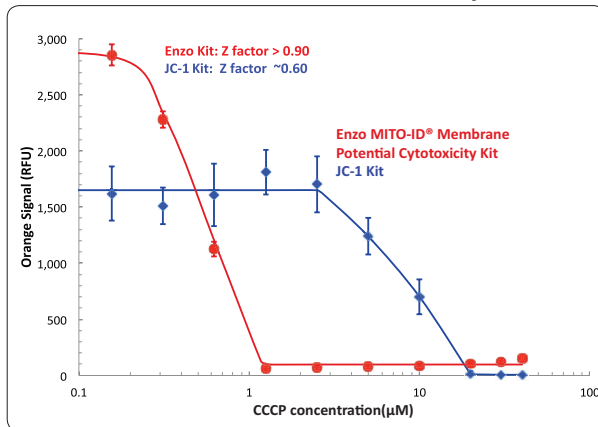
MITO-ID® Membrane Potential Detection Kit for Microscopy and Flow Cytometry (ENZ-51018)

The Only Assay that Monitors Energetic Status Using a Simple Mix-and-Read, No-Wash Protocol

MITO-ID® Membrane Potential Cytotoxicity Kit for Microplates (ENZ-51019)

A Real-time Mitochondrial Membrane Potential Assay with Superior Sensitivity

Detect MMP Perturbations with 10X More Sensitivity than JC-1



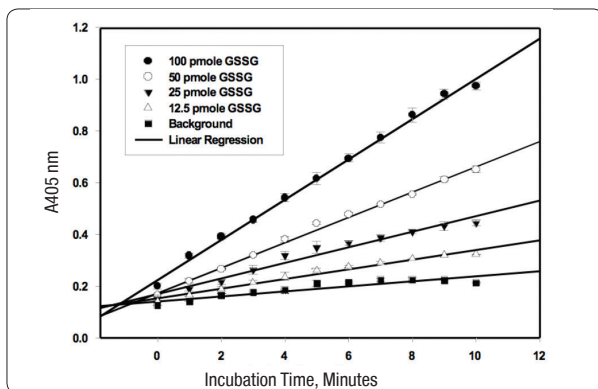
Quantify Glutathione

Glutathione (GSSG/GSH) Detection Kit (ADI-900-160)

Rapid, Ultra-sensitive Kit for the Quantification of Reduced (GSH), Oxidized (GSSG), and Total Glutathione

- High sensitivity assay based on an enzymatic recycling reaction for measuring total, oxidized, or reduced glutathione
- Easy-to-use, rapid kit with sample handling protocols for a wide variety of matrices
- Fast, accurate assay results in less than 30 minutes

Ultra-sensitive Detection and Analysis of Glutathione



DETECT METABOLIC ANALYTES ACCURATELY AND EFFICIENTLY

Dysregulation in metabolic pathways results in some of the most devastating global healthcare challenges we face today such as obesity, diabetes, cardiovascular disease and cancer. Metabolic biomarkers play an important role in both diagnosis and prognosis.

SIMPLIFY YOUR RESEARCH WITH ELISA KITS

Built upon our diverse scientific expertise and technology platforms, Enzo solutions enable you to advance your metabolic research with more than 300 ELISA kits for accurate detection of your specific analyte.

AMP'D® GLP-1 ELISA Kit (ENZ-KIT104)

- Ultra-sensitive measurement, down to 5.5 pg/mL
- Rapid results in 3 hours

Insulin ELISA Kit (ENZ-KIT141)

- Highly sensitive measurement, down to 21.6 pg/mL
- Rapid results in 3 hours

25(OH) Vitamin D Kit (ADI-900-215)

- Sensitive detection, down to 1.98 ng/mL
- Rapid results in 1.5 hours

Leptin ELISA Kit (ADI-900-028A)

- Highly sensitive detection, down to 23.4 pg/mL
- Rapid results in 3 hours

RELATED PRODUCTS					
TARGET	PRODUCT #	OBESITY	DIABETES	CARDIOVASCULAR DISEASE	CANCER
Adiponectin ELISA Kit	ALX-850-377	•	•	•	
AMP'D® GLP-1 ELISA Kit	ENZ-KIT104	•	•		
Annexin V ELISA Kit	ALX-850-049			•	
Bcl-2 ELISA Kit	ADI-900-133				•
Gastrin I ELISA Kit	ADI-900-026				•
Insulin ELISA Kit	ENZ-KIT141		•		•
KIM-1 ELISA Kit	ADI-900-226		•	•	
Leptin ELISA Kit	ADI-900-028A	•			
NGAL ELISA Kit	BPD-KIT-036/037 (rapid)	•	•	•	•
p53 ELISA Kit	ALX-850-057				•
Proinsulin ELISA Kit	ENZ-KIT149		•		
Vitamin D ELISA Kit	ADI-900-215		•	•	•

DID YOU KNOW...

We offer thousands of antibodies, including monoclonal and polyclonal antibodies, for metabolic research. Every antibody is backed by our **Worry-Free Antibody Trial Program**, allowing you to evaluate any of our antibodies of interest for your specific application or species without risk.

Calcitonin gene-related peptide
Cytochrome P450
Doxorubicin
GLP-1
MRP1

MRP2
MDR3 P-glycoprotein
Osteopontin
Osteocalcin
PARP-1
P-glycoprotein

You may also be interested in:



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www.enzolifesciences.com**

Put our experience to work for you!

Our broad range of scientific expertise and industry-proven manufacturing capabilities enables us to provide a comprehensive set of solutions for metabolic research.