

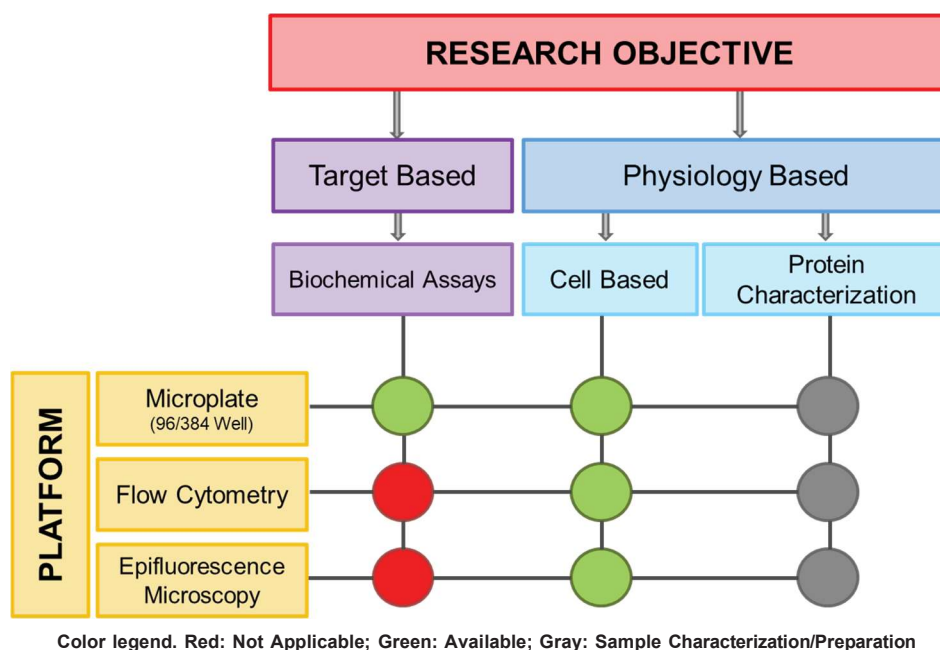
Akriv's Bio



Metabolic Assays
Sample Prep and Isolation
Cell Proliferation & Toxicity

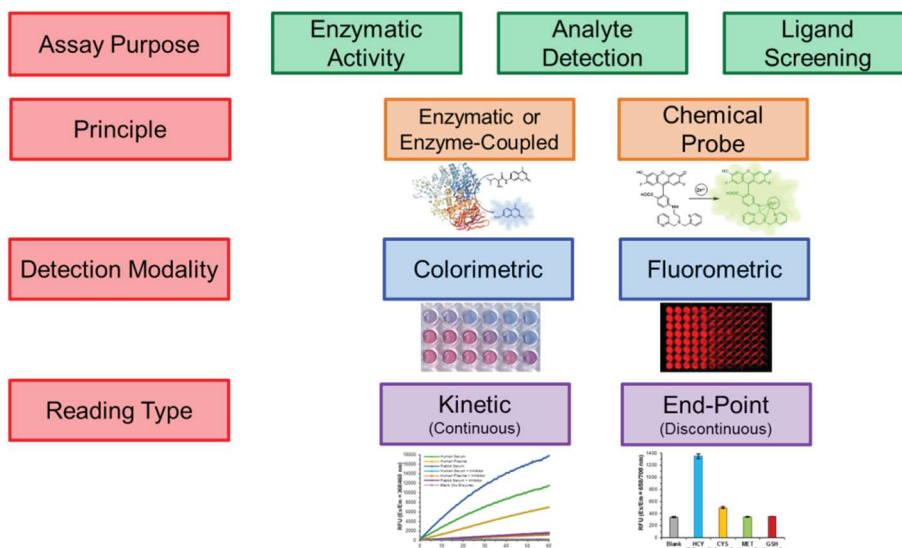
AkrivisBio Assay Products

AkrivisBio offers comprehensive *in vitro* bioassays that are used by scientists worldwide in numerous disease related areas such as cancer, diabetes, obesity, cardiovascular, liver and kidney disease, Alzheimer's, infectious diseases, etc., and other research areas including metabolism, neuroscience, epigenetics, oxidative stress, stem cells, protein extraction and sample preparation, etc. Our high-quality bioassays offer specificity, sensitivity, reproducibility and affordability. Our mission is to deliver innovative bioassays based on cutting edge research to meet your scientific needs. AkrivisBio's bioassay kits are designed to be used with the most popular and common research instrumentation (i.e. microplate reader, flow cytometer, and microscopes).



96-Well Microplate Assay Overview

AkrivisBio's extensive microplate-based assay portfolio offers numerous products used for the detection or quantitation of enzyme activity, of specific chemical analytes in biological samples and for high-throughput inhibitor screening. Our products utilize combinations of proprietary enzymes and chemical probes, carefully engineered and characterized for the detection of relevant targets. Our kits have been tested using real biological samples (blood, serum, plasma, urine, saliva, cell and tissue lysates, foodstuffs), ensuring that analytes are detectable in real-world biological matrices.



Metabolism Assay Kit Highlights

Metabolism plays a key role in various areas such as physiology, cell biology, and medicine. Research in metabolism is dramatically increased by the realization that many common human diseases such as cancer, diabetes, obesity, hypoglycemia, hypolipidemia, phenylketonuria, neurodegeneration, etc. are due to perturbations in metabolic pathways. Understanding the metabolic variations and possible outliers is thus a crucial aspect of disease-oriented research.

On the other hand, reactive oxygen species (ROS), produced endogenously by normal cellular metabolic functions as well as a variety external sources, pose a significant threat to cells due to damage to DNA, protein, and lipids. Identifying specific forms of damage is often the focal point of interest in different types of cancers and various neurological diseases. Antioxidant defenses to minimize effects of ROS are critical to cell survival and dictate approaches to disease treatments to reduce risk of cancer or age-related functional deterioration.

Biological processes are best characterized by studying cellular interactions due to exogenous factors. Preclinical and Clinical Research rely on assays that study different aspects of cellular behavior (cell cycle progression, migration, invasion) and measurement of the key building blocks in the cell is commonly used to monitor the health of cells in culture and their response to various stimuli (migration inducers, cell cycle arrest drugs, cholesterol transport inhibitors etc.).

AkrivisBio is proud to offer a broad range of Metabolism Assays ranging from the detection of enzymatic activity, metabolites such as carbohydrates, lipids, amino acids, inorganic ions, serum components, coenzymes & cofactors involved in oxidative stress, the glycolytic pathway, through the extent of intermediary metabolism. We offer a selection of assay kits and biochemicals (antioxidants, enzyme inhibitors and activators) and an expanding selection of assays to study some fundamental processes governing cellular biology.

Here, we present a collection of popular Metabolic Assays with useful technical information that can facilitate your Metabolism-related research. Detection method, platform, sample applications and assay sensitivity (for selected cases) have been included. The brochure highlights our assays targeting existing and emerging areas of research and drug discovery:

- Aging Research Products
- Alcohol Metabolism
- Alzheimer's Disease
- Amino Acids Metabolism
- Ammonia Metabolism
- ATP/ADP Metabolism
- Cancer and Metastasis
- Cancer Cell Metabolism
- Carbohydrates Metabolism
- Cardiovascular Disease
- Cell Damage & Oxidative Stress
- Cell Fractionation & Metabolism
- Cholesterol Related Metabolism
- Creatinine & Kidney Malfunction
- Diabetes Related Assays
- Drug Metabolism
- Enzymes & Cofactors Assays
- Fatty Acids Metabolism
- Glucose Uptake & Metabolism
- Glycogen Metabolism
- Hydroxyproline & Bone Diseases
- Infectious Diseases
- Iron Metabolism
- Kidney Disease
- Lactate & Brain Metabolism
- Lactate Dehydrogenase & Cancer
- Lipid Peroxidation & Metabolism
- Liver Disease
- Metabolic Syndrome
- Minerals & Ions Metabolism
- Mitochondria Metabolism
- NAD/NADH & Redox Metabolism
- Neuroscience Products
- Obesity Related Assays
- Phosphate & Phosphatase Assays
- Sample Preparation Kits
- Transaminase & Liver Diseases
- Triglyceride Metabolism
- Urea Excretion & Organ Disorder

Kit Name	Catalog Number	Kit Name	Catalog Number
3T3-L1 Lipolysis	MA-0189	Hexokinase	MA-0204
ACE1 Inhibitor Screening Kit	MA-0188	Homocysteine	MA-0183
ACE-2 Activity Assay	MA-0158	Hydrogen Peroxide	MA-0145
Acetate	MA-0130	Hydroxybutyrate	MA-0132
Acetyl CoA	MA-0127	Hydroxyproline	MA-0101
Adenosine	MA-0198	Inosine	MA-0173
Adipogenesis	MA-0199	Inulin	MA-0197
α -Galactosidase	MA-0142	Iron	MA-0103
α -Ketoglutarate	MA-0141	Lactate	MA-0115
Alcohol Dehydrogenase	MA-0162	Lactate	MA-0123
Aldehyde Dehydrogenase	MA-0169	L-carnitine	MA-0161
Aldolase	MA-0176	LDH	MA-0117
Alkaline Phosphatase Staining	COS-0105	LDH Cytotoxicity	CPT-0101
Alkaline Phosphatase	MA-0109	Lipase	MA-0149
ALT/SGPT	MA-0116	Lipid Extraction	PI-0101
Ammonia	MA-0125	Lipid Peroxidation	MA-0102
Ammonia Assay II	MA-0140	Live/Dead cell staining	COS-0103
Amylase	MA-0138	Lysosome Isolation	PI-0108
Arginine	MA-0185	Membrane Protein Isolation	PI-0104
Asparaginase	MA-0159	Mitochondrial DNA Isolation	PI-0105
AST/SGOT	MA-0120	MTS Cell Proliferation	CPT-0104
ATP	MA-0113	MTT Cell Proliferation	CPT-0103
β -Galactosidase Staining	COS-0104	Myeloperoxidase	MA-0135
Branched Chain Amino Acids	MA-0157	NAD/NADH	MA-0114
Calcium	MA-0104	NADP/NADPH	MA-0126
Carbonic Anhydrase	MA-0187	Neutrophil Elastase	MA-0156
Caspase 1	MA-0194	Nickel Assay	MA-0170
Caspase 3	MA-0191	Nitric Oxide	MA-0205
Catalase	MA-0143	Nuclear-Cytosol Fractionation	PI-0107
Cathepsin B	MA-0168	Oil Red O	COS-0101
Cathepsin D	MA-0154	P300 Inhibitor Screening	MA-0146
Cholesterol	MA-0119	Deproteinizing (PCA)	PI-0103
Cholesterol Detection (Cell-Based)	MA-0167	Phenylalanine	MA-0147
Choline Kinase Assay	MA-0200	Phosphodiesterase I Activity	MA-0160
Choline/Acetylcholine	MA-0152	Phosphate	MA-0105
Chymotrypsin	MA-0181	Phosphofructokinase	MA-0165
Citrate	MA-0139	Plasmin	MA-0177
Collagenase	MA-0195	Protein Carbonyl	MA-0150
Creatine Kinase	MA-0171	Pyruvate	MA-0129
Creatinine	MA-0121	Pyruvate Dehydrogenase	MA-0166
Crystal Violet Staining	CPT-0102	Pyruvate Kinase	MA-0107
CytoFrac Cell Fractionation	PI-0106	Reduced & Total Glutathione (DTNB)	MA-0202
D-Lactate	MA-0148	Senescence	COS-0102
DNA Ladder	MA-0196	Serine	MA-0182
Elastin	MA-0192	SOD	MA-0108
Enolase	MA-0174	Succinate	MA-0134
Ethanol	MA-0131	Sucrose/Glucose	MA-0180
Free Fatty Acid	MA-0111	Sulfatase	MA-0163
Glucose	MA-0122	Sulfite	MA-0184
Glucose-1-phosphate	MA-0172	TCA Deproteinizing	PI-0102
Glutamate	MA-0133	Total Antioxidant	MA-0106
Glutamine	MA-0164	Total Bile Acids	MA-0186
Glutathione Peroxidase	MA-0137	Total Carbohydrate	MA-0144
Glyceraldehyde-3-phosphate	MA-0153	Total Collagen (Perchlorate-free)	MA-0203
Glycine	MA-0179	Total Glutathione (Monochlorobimane)	MA-0201
Glycogen	MA-0112	Triglyceride	MA-0110
Glycogen	MA-0136	Trypsin	MA-0128
HDL/LDL Cholesterol	MA-0124	Tyrosinase Inhibitor Screening	MA-0178
Heme	MA-0190	Urea	MA-0118
Hemoglobin	MA-0193	Uric Acid	MA-0151
		Xanthine/Hypoxanthine	MA-0175

More information for each of our assay kits can be found on our website (www.AkrivisBio.com).

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