

Cuproptosis

Cuproptosis, identified in March 2022, is a novel mechanism of regulated cell death. It is copper-dependent and occurs through copper binding to lipoylated components of the TCA cycle, leading to protein aggregation, iron-sulfur cluster protein loss, proteotoxic stress, and ultimately cell death.

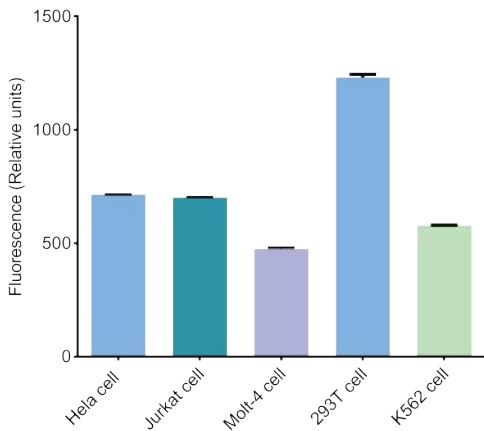
Cat. No.	Product Name	Size	Price
E-BC-F047	α-Ketoglutarate (α-KG) Fluorometric Assay Kit	48 T/96 T	\$356/\$520
E-BC-K775-M	Cell Copper (Cu ²⁺) Colorimetric Assay Kit (Complexing Method)	48 T/96 T	\$200/\$300
E-BC-F102	Cellular Cuprous Fluorometric Assay Kit	48 T/96 T	\$350/\$480
E-BC-K834-M	Cell Mitochondrial Complex I (NADH-CoQ Reductase) Activity Assay Kit	48 T/96 T	\$280/\$380
E-BC-K836-M	Cell Mitochondrial Complex III (Coenzyme Q-Cytochrome C Reductase) Activity Assay Kit	48 T/96 T	\$280/\$380
E-BC-K650-M	Pyruvate Dehydrogenase (PDH) Activity Assay Kit	96 T	\$400
E-BC-F058	Pyruvate Fluorometric Assay Kit	48 T/96 T	\$450/\$620

Please visit [www.elabscience.com](#) or contact your local dealers for more related products.

Featured Products

Cellular Cuprous Fluorometric Assay Kit (E-BC-F102)

- ① Reliable: Extensively validated with multiple cell types
- ② Efficient: Streamline your workflow with a 15-minute rapid detection process
- ③ Accurate: Highly specific, with no interference from other ions



Inhibitor Screening

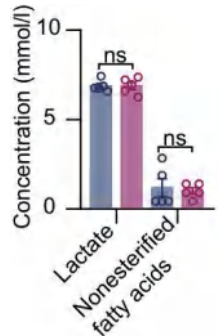
Enzymes are key targets in drug discovery. Elabscience has developed a range of advanced assay kits tailored for inhibitor screening, providing valuable tools to facilitate drug research and screening applications.

Cat. No.	Product Name	Size	Price
E-BC-D011	3-Hydroxy-3-methylglutaryl-CoA Reductase (HMGR) Inhibitor Screening Kit	48 T/96 T	\$470/\$660
E-BC-D001	Angiotensin I Converting Enzyme 2 (ACE2) Inhibitor Screening Kit	96 T	\$480

Cat. No.	Product Name	Size	Price
E-BC-D007	Dipeptidyl Peptidase IV (DPP4) Inhibitor Screening Assay Kit	96 T	\$520
E-BC-D019	Xanthine Oxidase (XOD) Inhibitor Screening Kit	96 T	\$480

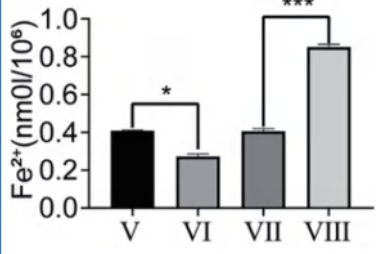
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Featured Publications



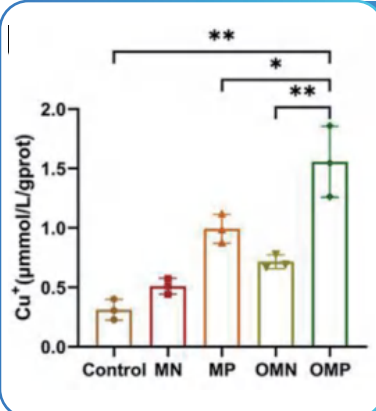
Energy Metabolism Series

- Light modulates glucose metabolism by a retina-hypothalamus-brown adipose tissue axis. *Cell*, 2023.
- The lactate level in mouse serum was detected by **L-Lactic Acid (LA) Colorimetric Assay Kit (E-BC-K044-M)**



Ferroptosis Series

- Exosome-mediated miR-144-3p Promotes Ferroptosis to Inhibit Osteosarcoma Proliferation, Migration, and Invasion through Regulating ZEB1. *Molecular Cancer*, 2023.
- The Fe²⁺ level in H143B cells was detected by **Cell Ferrous Iron Colorimetric Assay Kit (E-BC-K881-M)**



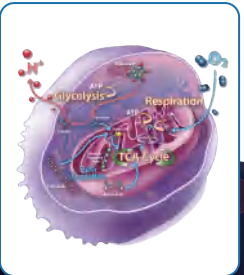
Cuproptosis Series

- Inhalable metal-organic framework-mediated cuproptosis combined with PD-L1 checkpoint blockade for lung metastasis synergistic immunotherapy. *Acta Pharmaceutica Sinica B*, 2024.
- The Cu²⁺ level in B16-F10 cells was detected by **Cell Copper (Cu²⁺) Colorimetric Assay Kit (Complexing Method) (E-BC-K775-M)**

Elabscience®

Metabolism Assay Kits

- ⌘ Ferroptosis
- ⌘ Energy Metabolism
- ⌘ Cuproptosis
- ⌘ Inhibitor Screening



A Reliable Research Partner in Life Science and Medicine

Elabscience Bionovation Inc.

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Elabscience Bionovation Inc.

Elabscience® has developed a series of featured products related to key metabolic indicators following the latest research trends. Our products cover cell death (ferroptosis, cuproptosis, disulfidptosis), mitochondrial function, and energy metabolism.

Premium Products

🧬 Ferroptosis Assay Kits

Complete indicators, providing holistic solutions for researchers

📁 Fluorometric Assay Kits

Enhanced sensitivity, improved specificity, and reduced sample volume requirements

📁 Energy Metabolism Assay Kits

Covers all metabolic pathways

🧪 Cell Component Extraction

Metabolic detection simplified with no homogenization required and easy cell lysis

Product Features

📁 Applicable Sample Types

Serum, plasma, cultured cells, and tissue across multiple species

📁 Technical Support

We offer comprehensive technical support and guidance for your research needs

📁 External Validation

Utilized in studies published in renowned journals, including *Nature, Cell, and Advanced Materials*

Selected Product Lines

■ Energy Metabolism

Energy metabolism is a fundamental cellular process involving key pathways such as glycolysis, lipid metabolism, the tricarboxylic acid (TCA) cycle, and oxidative phosphorylation. It serves as a critical indicator of cellular health and function.

Cat. No.	Product Name	Size	Price
E-BC-K652-M	Acetyl-CoA Colorimetric Assay Kit	48 T/96 T	\$350/\$490
E-BC-F009	Adenosine Diphosphate (ADP) Fluorometric Assay Kit	48 T/96 T	\$380/\$580
E-BC-F065	Adipogenesis Fluorometric Assay Kit	96 T	\$350
E-BC-F002	ATP Chemiluminescence Assay Kit	48 T/96 T	\$300/\$450
E-BC-F004	ATP/ADP Ratio Chemiluminescence Assay kit	48 T/96 T	\$320/\$420
E-BC-K178-M	Citrate Synthase (CS) Activity Assay Kit Extracellular Acidification Rate (ECAR)	48 T/96 T	\$320/\$450
E-BC-F069	Fluorometric Assay Kit	48 T/96 T	\$320/\$420
E-BC-F067	Fatty Acid Uptake Fluorometric Assay Kit	96 T	\$420
E-BC-F041	Glucose Uptake Fluorometric Assay Kit	96 T/500 Assays	\$780/\$2000
E-BC-K044-M	L-Lactic Acid (LA) Colorimetric Assay Kit	48 T/96 T	\$220/\$300
E-BC-F068	Oxygen Consumption Rate (OCR) Fluorometric Assay Kit	48 T/96 T	\$360/\$520

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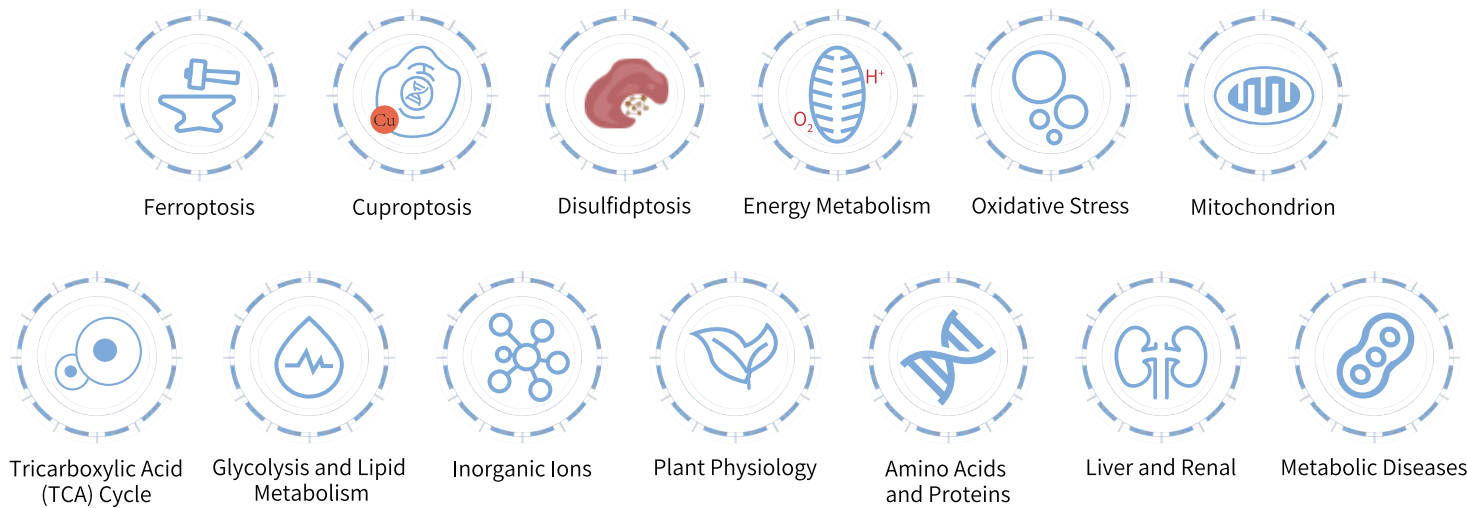
■ Ferroptosis

Ferroptosis is an iron-dependent form of regulated cell death driven by the accumulation of lipid peroxides and elevated intracellular ferrous iron levels. It results from an imbalance in the production and degradation of lipid reactive oxygen species, making it a critical area of research in oxidative stress and cell death mechanisms.

Cat. No.	Product Name	Size	Price
E-BC-K881-M	Cell Ferrous Iron Colorimetric Assay Kit	48 T/ 96 T	\$200/\$300
E-BC-F101	Cell Ferrous Iron (Fe ²⁺) Fluorometric Assay Kit	96 T	\$420
E-BC-F066	Cystine Uptake Fluorometric Assay Kit	96 T	\$580
E-BC-F022	Ferroptosis Suppressor Protein-1 (FSP-1) Activity Fluorometric Assay Kit	96 T	\$520
E-BC-K883-M	Glutathione Peroxidase 4 (GPX4) Activity Assay Kit	48 T/96 T	\$342/\$512
E-BC-K771-M	Lactate Dehydrogenase (LDH) Cytotoxicity Colorimetric Assay Kit	96 T/ 500 Assays	\$140/\$320
E-BC-F003	Lipid Peroxide (LPO) Fluorometric Assay Kit	96 T	\$426
E-BC-K776-M	Selenium Colorimetric Assay Kit	48 T/ 96 T	\$260/\$380
E-BC-K794-M	Squalene Synthase (SQS) Activity Colorimetric Assay Kit	48 T/ 96 T	\$400/\$560

Please visit www.elabscience.com or contact your local dealers for more related products.

Research Field Specific



Featured Products

Extracellular Acidification Rate (ECAR) Fluorometric Assay Kit (E-BC-F069)

Fluorescence microplate reader compatibility for seamless detection

Oxygen Consumption Rate (OCR) Fluorometric Assay Kit (E-BC-F068)

Stable fluorescence signal ensures reliable kinetic measurements

ATP/ADP Ratio Chemiluminescence Assay Kit (E-BC-F004)

High sensitivity and accuracy

Featured Products

Cell Ferrous Iron (Fe²⁺) Fluorometric Assay Kit (E-BC-F101)

High specificity and accuracy

Lipid Peroxide (LPO) Fluorometric Assay Kit (E-BC-F003)

Simple operation compatible with multiple instruments

Glutathione Peroxidase 4 (GPX4) Activity Assay Kit (E-BC-K883-M)

Innovative technology optimized for cell sample analysis