

# **Assay Kits**

Flexible Formats for Biomarker Detection, Cell Analysis, and Enzyme Activity



# SENSITIVE, ACCURATE, REPRODUCIBLE ASSAYS

Entrust your precious samples, time, and research budget to assay kits from Enzo Life Sciences

Assay kits can be convenient time-saving tools to help accelerate your research, but not all assays are created equal. Some that promise convenience fail to deliver biologically relevant sensitivity, or the reproducibility needed for long-term studies, which can ultimately cost you more time and money. Whether you use ELISA kits for biomarker detection, assess cellular function with fluorescent assays, or screen enzyme modulators with activity assays, every Enzo assay kit offers something a lot of other companies out there today do not—Experience.

It takes more than just an antibody pair to make an ELISA. Building an immunoassay requires screening multiple antibodies, selecting appropriate standards and conjugates, establishing proper sample prep protocols, and validating the assay in relevant matrices. Our expertise in developing ELISAs is further backed by four decades of manufacturing excellence. Strict validation criteria and state-of-the-art manufacturing facilities deliver reproducible assays that continue to be cited in peer-reviewed publications by scientists around the world.

#### **ELISA Kits**

- · Competitive and immunometric formats
- Multi-plate packs available
- · Color-coded reagents reduce user error

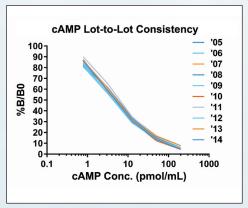
### **CELLESTIAL® Assays**

- Novel assays for autophagy, aggregation, and multi-drug resistance
- · Increased photostability and permeability
- Multiplex-compatible (GFP-CERTIFIED®) assays

### **Enzyme Activity Assays**

- · High-purity, high-activity control enzymes
- Novel substrate/developer chemistry
- Reduce interference from candidate compounds

### Reliable Manufacturing Ensures Consistent Results



The graph above demonstrates the robust and reproducible nature of the competitive cAMP ELISA Kit (ADI-900-067), showing standard curves from 10 kit lots manufactured over 10 years.

# **Immunoassay Kits**

Our catalog of nearly 300 ELISA kits includes sensitive, specific assays for relevant markers of cell viability, signaling pathways, steroid and peptide hormones, inflammation, and more. In addition to traditional antibody pair based immunometric assays, our scientists specialize in the particularly challenging production of high-specificity competitive ELISAs for detection of small molecules. With 40 years of assay development experience and state-of-theart manufacturing facilities, Enzo ensures time-tested reproducibility.

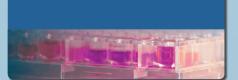
# **Cell-Based Assays**

Our CELLESTIAL® portfolio of fluorescent probes and assay kits for cellular analysis provides a complete set of tools for monitoring cell viability, proliferation, death, oxidative stress and toxicology. Our dye-based assays have been optimized for the most demanding imaging applications including confocal microscopy, widefield fluorescence microscopy, flow cytometry, and high content screening, where consistency and reproducibility are essential.



### **Enzyme Activity Assays**

Whether you are performing large-scale screens, or studying specific enzyme kinetics, our high activity enzymes, unique substrates, and convenient kits are designed to deliver high-quality hits.



# DETECT SMALL & LARGE ANALYTES ACCURATELY & EFFICIENTLY

Enzo Life Sciences offers a large variety of immunoassay kits in both immunometric and competitive assay formats. As scientists and manufacturers of kits, we understand the critical nature of your research. Each kit is put through rigorous testing to ensure high precision, accuracy, sensitivity, and specificity. You can be confident that you will obtain reproducible results, day-after-day and lot-after-lot.

Consistent - strict quality control guidelines ensure reproducible results, lot-after-lot

Trusted - reliability highlighted in peer-reviewed publications for three decades

Flexible – adaptable to automated equipment for high-throughput systems

#### **Cyclic Nucleotides**

The most sensitive colorimetric ELISA kits for detection of cAMP and cGMP, key second messenger signaling molecules.

Cyclic AMP Complete Cyclic GMP Complete Cyclic AMP Direct (Intracellular) Cyclic GMP Direct (Intracellular) Cyclic AMP (Extracellular) Cyclic GMP (Extracellular)

#### **Hormones**

Sensitive assays for steroid and peptide hormones that regulate stress, reproduction, metabolism, cardiovascular physiology, and more.

Peptide **Steroid** Angiotensin Aldosterone Bradykinin Corticosterone Endothelin-1 Cortisol Gastrin DHEA GLP-1 17β-Estradiol Insulin Estriol LVV-Hemorphin 24(S) Hydroxycholesterol Oxytocin **FSH** Proinsulin Proinsulin

Substance P
Vasopressin

Melatonin
Progesterone
Testosterone
Serotonin

Serotonin

Progesterone
Testosterone
25(OH) Vitamin D

### **Wnt Pathway**

β-catenin

Quantify key components of the Wnt pathway critical to cancer, development, bone remodeling, and neurodegeneration.

Total/Phospho-GSK-3 $\beta$  Dkk-1

#### Neuroscience

High-specificity, sensitive assays for biomarkers of neurodegeneration and neural signaling.

24(S) Hydroxycholesterol Serotonin Survival Motor Neuron (SMN1) APP∆C31

#### **Heat Shock & Oxidative Stress**

The definitive collection of ELISA kits for heat shock and oxidative stress.

αB-Crystallin
HSP25/27
HSP40
HSP60
HSP70 & HSP70 High Sensitivity
HSP90
Grp75
Grp78
Grp94
Heme Oxygenase-1
DNA Damage (8-OHdG)
Nitric Oxide

#### **Toxicology**

Biomarker detection for assessing response to toxic compounds.

NGAL KIM-1

#### **Bioprocess**

Sensitive ELISA kits for biotherapeutic characterization and residual contaminant detection.

PEGylated Protein Protein A CHO HCP E. coli HCP

### **Programmed Cell Death**

Quantify critical cell death pathway proteins. The perfect complement to our CELLESTIAL® cell-based assays.

Autophagy p62 (Sequestosome 1) NBR1 Apoptosis
Bax
Bcl-2
Cytochrome C
p53/MDM2
Survivin
XIAP

#### **Immunology**

Broad portfolio of sensitive, high-specificity ELISA kits for inflammation and immunological studies.

Adiponectin IL-33 ANĠPTL Leptin CD40/CD40L LTB<sub>₄</sub> **CRP** Methotrexate Cysteinyl Leukotrienes Nampt NGAL FasL 12(S) HETE Osteoprotegerin 15(S) HETE 8-iso-PGF<sub>20</sub> 6-keto-PGF<sub>1</sub> Histamine

 $\begin{array}{lll} \text{13(S) HODE} & \text{PGE}_2 \text{ FPIA \& CLIA} \\ \text{IFN-}\gamma & \text{PGE}_2 \& \text{PGE}_2 \text{ High Sensitivity} \\ \text{IL-}1\beta & \text{PGF}_{2\alpha} \& \text{PGF}_{2\alpha} \text{ High Sensitivity} \\ \text{IL-2} & \text{PSA} \end{array}$ 

**RANKL** IL-4 IL-5 Resistin IL-6 TGF-β1 IL-8 TIMP-1 IL-10 TNF- $\alpha$ Transferrin IL-12p70 IL-13 TXB<sub>2</sub> IL-17A VEGF

FEATURED ELISA KITS					
Product Name	Product #	Product Name	Product #		
24(S) Hydroxycholesterol ELISA Kit	ADI-900-210	HSP70 High Sensitivity ELISA Kit	ADI-EKS-715		
25(OH) Vitamin D ELISA Kit	ADI-900-215	$HSP90\alpha$ (human) ELISA Kit	ADI-EKS-895		
cAMP Complete ELISA Kit	ADI-900-163 †	MBL Oligomer ELISA Kit	BPD-KIT-029		
cGMP Complete ELISA Kit	ADI-900-164 †	NGAL (human) ELISA Kit	BPD-KIT-036		
Corticosterone ELISA Kit	ADI-900-097 †	Oxytocin ELISA Kit	ADI-900-153 †		
Cortisol ELISA Kit	ADI-900-071 †	PGE <sub>2</sub> ELISA Kit	ADI-900-001 †		
Dkk-1 (human) ELISA Kit	ADI-900-151	PGE <sub>2</sub> High Sensitivity ELISA Kit	ADI-930-001 †		
DNA Damage ELISA Kit	ADI-EKS-350	Protein A ELISA Kit	ADI-900-057		
Endothelin-1 ELISA Kit	ADI-900-020A	Serotonin ELISA Kit	ADI-900-175		
HO-1 (human) ELISA Kit	ADI-EKS-800	SMN ELISA Kit	ADI-900-209		
HSP70 ELISA Kit	ADI-EKS-700B	Testosterone ELISA Kit	ADI-900-065 †		

# VISUALIZE CELLULAR RESPONSES WITH NOVEL FLUORESCENT PROBES

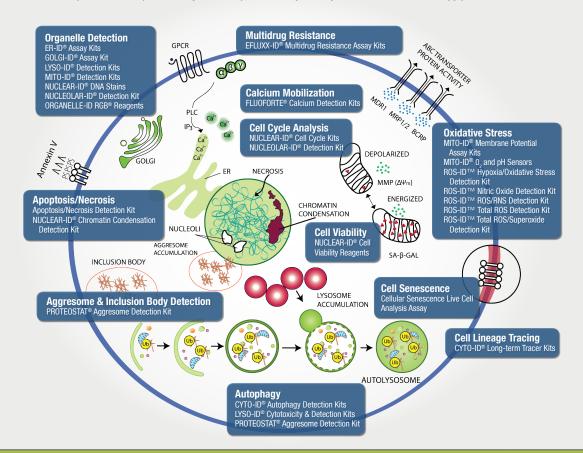
Our panel of CELLESTIAL® fluorescence-based live cell assays is built upon our extensive expertise in the design and synthesis of fluorescent probes. From simple organelle-specific dyes for imaging cell structure and determining cell viability, to more complex dyes for evaluating cell signaling and death pathways, each of our probes is developed to provide sensitivity, specificity, and convenience.

Convenient - Increased photostability reduces photobleaching

**Specific** – Reduce false positives by eliminating non-specific dye-associated artifacts

Flexible - Compatible with common dyes and fluorescent markers (i.e., GFP) for multiplex analysis

Consistent – Optimized for reproducibility on microplate, flow cytometry, or fluorescent microscopy platforms



FEATURED CELLESTIAL® ASSAY KITS				
Product Name	Product #	MP 🌉	Flow 🔥	Microscopy 3
Apoptosis/Necrosis Detection Kit	ENZ-51002		•	•
Cellular Senescence Live Cell Analysis Kit	ENZ-KIT130		•	•
CYTO-ID® Autophagy Detection Kits	ENZ-51031, KIT175	•	•	•
FLUOFORTE® Calcium Assay Kit	ENZ-51016, 51017	•	•	•
LYSO-ID® Red Detection Kit	ENZ-51015			•
MITO-ID® Extracellular 0 <sub>2</sub> Sensor Kit	ENZ-51044, 51045	•		
MITO-ID® Extracellular pH Sensor Probe	ENZ-51048	•		
MITO-ID® Membrane Potential Cytotoxicity Kit	ENZ-51019	•		
MITO-ID® Membrane Potential Detection Kit	ENZ-51018		•	•
PROTEOSTAT® Aggresome Detection Kit	ENZ-51035		•	•
ROS-ID™ Hypoxia/0xidative Stress Detection Kit	ENZ-51042		•	•
ROS-ID™ Total ROS Detection Kit	ENZ-51011	•	•	•
ROS-ID™ Total ROS/Superoxide Detection Kit	ENZ-51010	•	•	•

# SCREEN ENZYME MODULATORS WITH INNOVATIVE ACTIVITY ASSAYS

Our decades of experience in the design and manufacture of active enzymes and their substrates support the development of an ever-expanding portfolio of biochemical assays. Our menu of scalable enzyme activity assays is anchored by our FLUOR DE LYS® deacetylase assay platform, featuring kits for screening modulators of HDAC and Sirtuin activity. We also offer FRET-based assays for matrix metalloproteinases (MMPs) and caspase activity, as well as phospho-specific antibody-based kinase assays. These assays exemplify the synergy of Enzo capabilities, assembling small peptide, active recombinant protein synthesis. fluorescent labeling and detection technologies, and antibody development into robust, reproducible assay kits.

Quality - High-activity, high-purity recombinant enzymes for high-quality hits

Flexibility – Bulk enzymes and substrates available for post-screening studies

Innovation – Patented substrate/developer chemistries in a variety of readout formats

# CONVENIENT SCREENING FORMATS FROM THE PIONEER IN NON-RADIOACTIVE HDAC & SIRTUIN ASSAYS

The FLUOR DE LYS® deacetylase assay platform revolutionized detection of HDAC & Sirtuin enzyme activity when it was introduced over a decade ago. Today, it continues as the gold standard in drug discovery research and target validation. FLUOR DE LYS® has freed researchers from cumbersome protocols required by radiolabeled or other modified histone-based methods. Our high-quality assays utilize patented substrate/developer chemistry in combination with high-activity, high-purity enzymes, to deliver more high-quality hits. Broad-class HDAC/Sirtuin screening assays are available in chemiluminescent, fluorescent, and colorimetric formats.



#### FLUOR DE LYS® **Robust fluorescent** screening assays

# **COLOR DE LYS®**

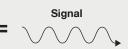
## CHEMILUM DE LYS®

Option for standard absorbance plate readers Ideal for cross-validation of fluorescent assays



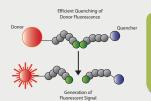






#### **Modified Substrate-Based Format**

CHEMILUM DE LYS® HDAC/SIRT Drug Discovery Kit FLUOR DE LYS® HDAC & HDAC Green Assay Kits COLOR DE LYS® HDAC Activity Assay Kit FLUOR DE LYS® HDAC1/2/3/6/8 Specific Assay Kits FLUOR DE LYS® SIRT 1/2/3/5 Assay Kits Acetyltransferase & Methyltransferase Assay Kits



#### FRET-Based Format

MMP-1/2/3/7/8/9/10/12/13/14/19/20 Assay Kits Caspase 1/3/8/9 Assay Kits ADAM17 (TACE) Drug Discovery Kit



**Antibody-Based Format** 

PKA, Akt & PKC Activity Assay Kits

FEATURED ENZYME ACTIVITY ASSAYS					
Product Name	Product #	Product Name	Product #		
Acetyltransferase Activity Kit	ADI-907-026	FLUOR DE LYS® SIRT1 Fluorometric Drug Discovery Kit	BML-AK555		
Calcineurin Phosphatase Assay Kit	BML-AK804	MMP-1 Colorimetric Drug Discovery Kit	BML-AK404		
DPPIV Drug Discovery Kit	BML-AK499	MMP-9 Colorimetric Drug Discovery Kit	BML-AK410		
CHEMILUM DE LYS® HDAC/SIRT Chemiluminescent Drug Discovery Kit	BML-AK532	PKA Kinase Activity Kit	ADI-EKS-390A		
FLUOR DE LYS® HDAC Fluorometric Activity Assay Kit	BML-AK500	PKC Kinase Activity Kit	ADI-EKS-420A		
FLUOR DE LYS® Green HDAC Fluorometric Activity Kit	BML-AK530	Akt Kinase Activity Kit	ADI-EKS-400A		

### You may also be interested in:















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Quality Management Systems and Environmental certified according to EN ISO 9001, ISO 13485 and EN ISO 14001

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# Put our experience to work for you!