



Drug Discovery

Innovative Tools for
Accelerating Drug Discovery

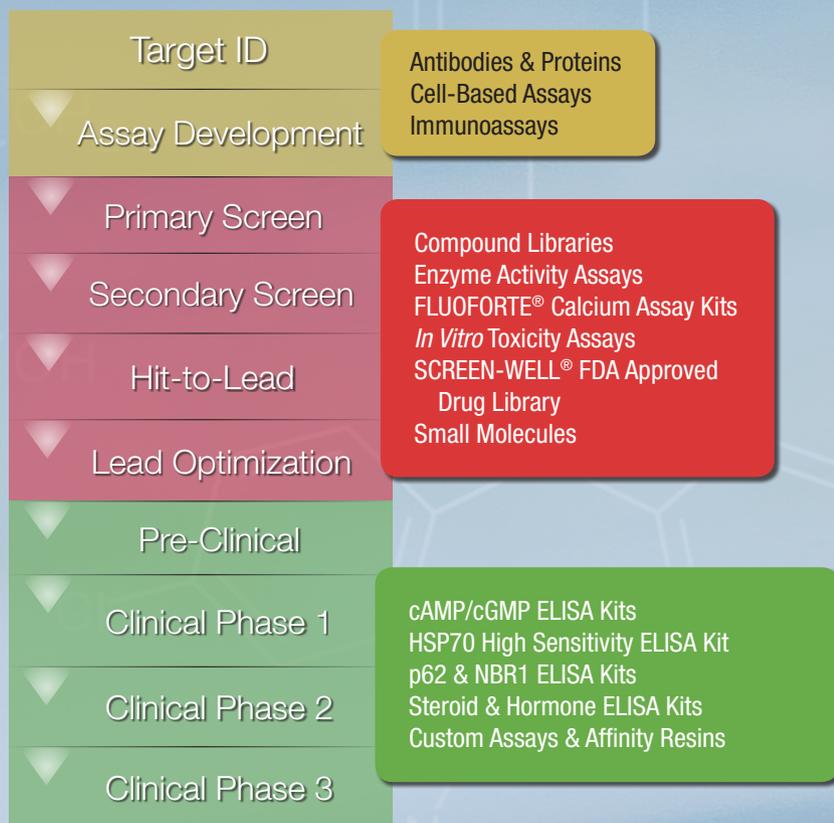


Accelerate Your Drug Discovery Program

Development of a single drug, whether it is a new chemical entity or a biologic therapeutic, requires significant investment of resources. Each step of the process from early discovery through production and delivery must be fully explored, characterized, and understood.

From target discovery and validation to formulation and manufacturing, Enzo offers a line of products and services that can accelerate your drug discovery program. Choose from an extensive range of assay kits, enzymes, substrates and compound libraries for primary and secondary screening, immunodetection assays for reliable biomarker detection, and cytotoxicity assays for *in vitro* drug safety assessment. Our aim is to deliver innovative tools that make drug development more efficient, cost-effective and successful.

Drug Development Pipeline



Biotherapeutics Development Process



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, wide-field 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. Bulk enzyme inhibitors are also available to assist in characterizing new components.

Immunoassays

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. Over 40 years of assay development experience and state-of-the-art manufacturing facilities ensure time-tested reproducibility.



STREAMLINE YOUR SCREENING PROCESS

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

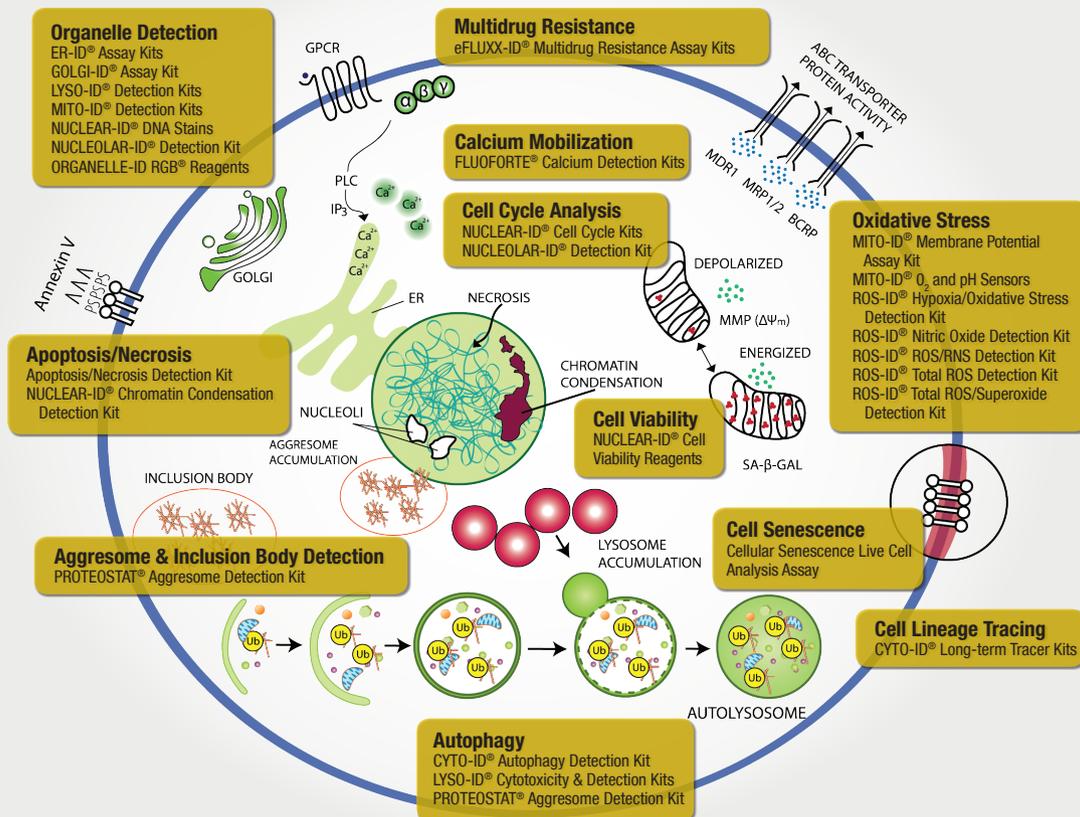
Reduce false positives by
eliminating non-specific
dye-associated artifacts

FLEXIBLE

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

CONSISTENT

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



FEATURED CELLESTIAL® ASSAY KITS

Description	Cat. No.
CYTO-ID® Autophagy Detection Kit	10662-266 89165-926
FLUOFORTE® Calcium Assay Kit	89165-896
FLUOFORTE® Calcium Assay Kit (GFP-CERTIFIED®)	89165-902 89165-904
MITO-ID® Extracellular O ₂ Sensor Kit	10136-034 10136-036
MITO-ID® Extracellular pH Sensor Probe	10136-042
MITO-ID® Membrane Potential Cytotoxicity Kit	89165-900
ROS-ID® Total ROS Detection Kit	89165-884
ROS-ID® Total ROS/Superoxide Detection Kit	89165-882
ROS-ID® Superoxide Detection Kit	89165-886

Focused Collection of Unique Compound Libraries

Enzo Life Sciences has a long and successful track record in identifying, synthesizing, and commercializing valuable known bioactives for use as research tools. Our small molecules are available as either stand-alone products or curated libraries, offering ultimate flexibility and value. Our long-standing, flagship SCREEN-WELL® Compound Library product family offers an easy, ready-to-use method for compound screening.

SCREEN-WELL® Autophagy Library (89426-194 / 89426-196)

Structurally and mechanistically different compounds for studying the roles of pro- and anti-autophagic molecules in cells and in vitro applications

- The SCREEN-WELL® Autophagy Library is a useful tool for studying the role of pro- and anti-autophagic molecules using in vitro screening assays.
- A unique collection containing 94 compounds with defined autophagy-inducing or -inhibitory activity, selected from structurally and mechanistically different compound classes known to modulate autophagy-related targets and processes including:
 - mTOR/PI3K
 - Heat Shock Proteins
 - Epigenetic Regulators
 - ER Stress
 - Calcium Channels
 - Proteasome
 - Cytoskeleton
 - Lysosomal pH
 - cAMP
 - and more...

COMPOUND LIBRARIES

Description	Cat. No.
Autophagy Library	89426-194 / 89426-196
Bioactive Lipid Library	89156-248 / 89156-250
Cardiotoxicity Library	89426-198 / 89426-200
Hepatotoxicity Library	89426-202 / 89426-204
Hematopoietic Toxicity Library	89426-206 / 89426-208
ICCB Known Bioactives Library	89156-306

SCREEN ENZYME MODULATORS WITH INNOVATIVE ACTIVITY ASSAYS

Our decades of experience in the design and manufacture of active enzymes and their substrates supports 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

INNOVATIVE

Patented substrate/developer chemistries in a variety of readout formats

HDAC/SIRTIIN ASSAYS

HDAC and Sirtuin Assays

- Non-radioactive, homogeneous, HTS compatible formats
- Green & chemiluminescent assays available to minimize interference
- Assay all HDAC classes from multiple sources
- High-activity, in-house manufactured control enzymes

Convenient Screening Formats

FLUOR DE LYS[®]
Robust fluorescent screening assays



Developer
Enhancer

CHEMILUM DE LYS[®]
Ideal for cross-validation of fluorescent assays

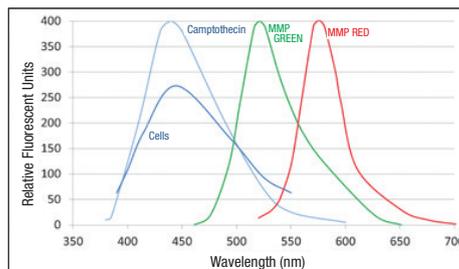
Signal



MMP ASSAYS

MMP RED and GREEN Drug Discovery Kits

- Improved red-shifted substrate with better kinetics and brighter signal
- Includes active recombinant enzyme, substrate, and assay buffer
- Convenient determination of real-time cleavage kinetics
- Microplate format for high-throughput screening

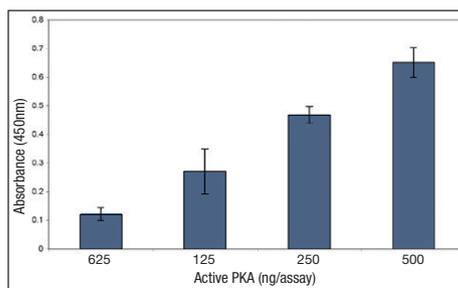


Fluorescent emission spectra of small molecule drug camptothecin (light blue), OE33 cells (dark blue), MMP GREEN substrate (green), and MMP RED substrate (red), showing that the MMP GREEN and RED substrates avoid the interference caused by small molecules and cells.

KINASE ASSAYS

Akt, PKA, PKC Kinase Activity Kits

- Optimal flexibility with end-point or kinetic assay read-out
- Safe, rapid and reliable colorimetric detection for use with basic instrumentation
- Validated for multiple sample types including adherent cells, suspension cells, tissue extracts, and proteins from any species
- Maximal efficiency and low sample volume requirements leading to reduced cost during screening



Analysis of purified active PKA activity with 89141-834. Varying quantities of purified active PKA were assayed using the PKA substrate microtiter plate. Assays were incubated for 60 min at 30° C.

FEATURED PRODUCTS

Description	Cat. No.	Description	Cat. No.
Akt Kinase Activity Kit	89141-836	FLUOR DE LYS [®] HDAC Fluorometric Activity Assay Kit	89156-506
CHEMILUM DE LYS [®] HDAC/SIRT Chemiluminescent Drug Discovery Kit	10033-580	FLUOR DE LYS [®] HDAC Fluorometric Drug Discovery Assay Kit	89156-508
COLOR DE LYS [®] HDAC Colorimetric Activity Assay Kit	89156-504	MMP-9 Colorimetric Drug Discovery Kit	89156-470
FLUOR DE LYS [®] deacetylase substrate	89160-282	PKA Kinase Activity Kit	89141-834
FLUOR DE LYS [®] Green HDAC Fluorometric Activity Kit	89156-516	PKC Kinase Activity Kit	89141-838

Hundreds of enzymes and substrates available in bulk.

DETECT ANALYTES ACCURATELY WITH HIGH SENSITIVITY ELISA KITS

Enzo Life Sciences offers over 300 ELISAs in both immunometric and competitive assay formats. 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.

BIOPROCESS

BIOLIKE®
CHO HCP
E. coli HCP
PEGylated Protein
Protein A

CANCER RESEARCH

Matriptase
p53
PSA
Survivin
VEGF

CARDIOVASCULAR RESEARCH

Angiotensin
Bradykinin
Fibrinogen
Plasminogen
Troponin I

IMMUNOLOGICAL RESEARCH

CRP
Histamine
IFN- γ
IL-6
LTB₄
MBL Oligomer
PGE₂
TGF- β 1

METABOLISM RESEARCH

Adiponectin
GLP-1
KIM-1
Insulin
Leptin
NGAL
Proinsulin
25 (OH) Vitamin D

NEUROSCIENCE RESEARCH

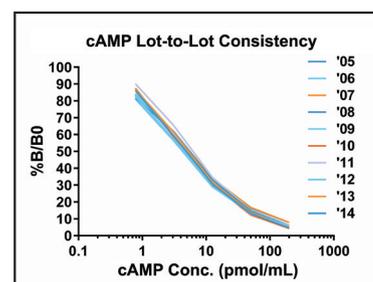
Angiotensin
APP Δ C31
cAMP/cGMP
Melatonin
Serotonin
SMN
24(S)-
Hydroxycholesterol

FEATURED ELISA

cAMP/cGMP ELISA Kits

Most sensitive and complete colorimetric ELISA kits for the quantification of intracellular and extracellular cAMP or cGMP in a variety of sample types.

		SAMPLE TYPES						
		Intracellular		Extracellular				
		Cell Lysates	Tissue Extract	Culture Supernatant	Serum	Saliva	Urine	Plasma
cAMP	Complete	✓	✓	✓	✓	✓		
	Direct	✓	✓					
	Standard			✓	✓	✓		
cGMP	Complete	✓	✓	✓	✓	✓		✓
	Direct	✓	✓					
	Standard			✓	✓	✓	✓	✓

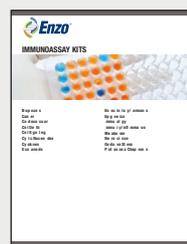
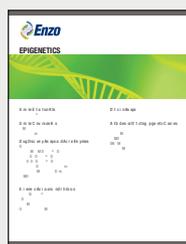
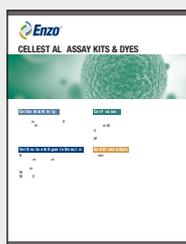
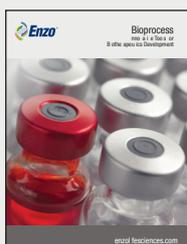


Graph demonstrates the robust and reproducible nature of the competitive cAMP ELISA kit (89141-116) showing standard curves from 10 lots manufactured over 10 years.

FEATURED PRODUCTS

Description	Cat. No.	Description	Cat. No.
Angiotensin ELISA Kit	10049-234	LTB ₄ ELISA Kit	89141-118
cAMP ELISA Kits	89141-240 / 101105-988 / 89141-116	Matriptase ELISA Kit	10049-254
cGMP ELISA Kits	89141-242 / 89141-066 / 89141-068	Melatonin ELISA Kit	75786-350
CHO HCP ELISA Kit	10551-286	PGE ₂ ELISA Kit	89141-052
CRP ELISA Kit	75786-324	Plasminogen ELISA Kit	10135-980
Fibrinogen ELISA Kit	10135-978	Proinsulin ELISA Kit	10842-550
GLP-1 ELISA Kit	75786-326	Protein A ELISA Kit	89141-106
Histamine ELISA Kit	75786-340	Serotonin ELISA Kit	89133-388
IFN- γ ELISA Kit	89141-194	SMN ELISA Kit	10049-238
IL-6 ELISA Kit	89141-090	Survivin ELISA Kit	89141-164
Insulin ELISA Kit	75786-342	TGF- β 1 ELISA Kit	89141-224
KIM-1 ELISA Kit	75786-622	Troponin I ELISA Kit	10135-974
Leptin ELISA Kit	89141-088	VEGF ELISA Kit	75786-352

You may also be interested in:



Put our experience to work for you!

Our broad range of scientific expertise and drug discovery manufacturing capabilities enables us to provide innovative tools for drug discovery to save you time and money!



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