



Cardiovascular

Discover, Analyze & Quantify
Cardiovascular Biomarkers

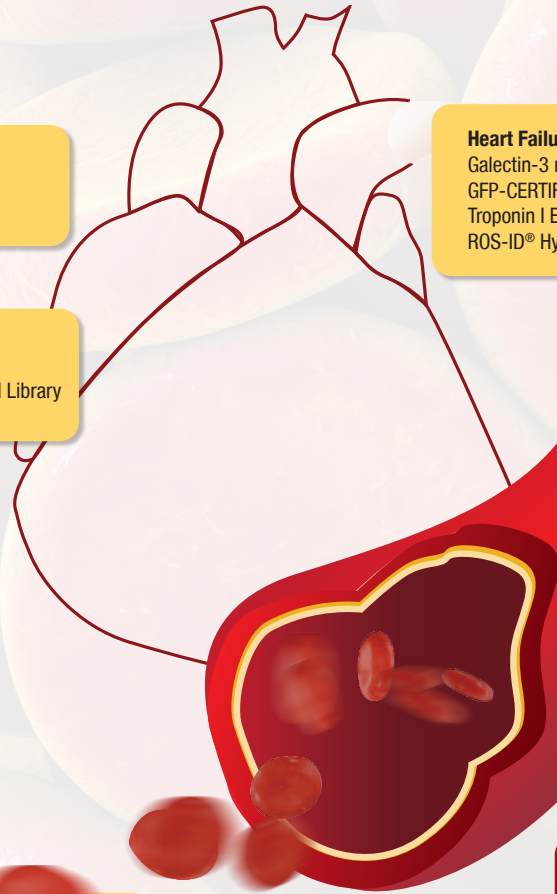


PUMP UP YOUR RESEARCH

Tools For Discovery & Detection of Cardiac Disease Markers

The cardiovascular or circulatory system provides the body with essential nutrients and oxygen. Besides its nourishing function, it also plays a crucial role in inflammation and fighting infections, maintaining homeostasis, transporting hormones, and stabilizing body temperature. It also assists the body in recovering from damage and trauma. Although the system is extremely resilient, repeated or continuous stress can cause long-term damage and lead to cardiovascular diseases such as heart failure and stroke.

Cardiovascular disease is consistently ranked as the single largest cause of death in the world, and it may be caused by heart damage or vascular problems. Challenges in cardiovascular clinical development have caused researchers to take a closer look at cardiac function and metabolism. Enzo Life Sciences offers a comprehensive portfolio of products to enable discovery of cardiac risk factors as well as analysis of the cellular response to novel therapeutics for cardiovascular medicine.



Signal Transduction

cAMP ELISAs
cGMP ELISAs

Ion Channels

Calcineurin Activity Assay
SCREEN-WELL® Ion Channel Ligand Library
FLUOFORTE® Calcium Kits

Blood Clotting & Fibrinolysis

Abs (Fibrinogen, D-dimer)
Fibrinogen ELISA Kit
Plasminogen ELISA Kit

Vasorelaxation & Vasoconstriction

Angiotensin ELISAs
Endothelin ELISA Kit, proteins, Abs
Leukotoxin A, B

Angiogenesis

Angiopoietin-related protein Abs
MMP Activity Assays
Netrin ELISA Kit

Heart Failure

Galectin-3 mAb
GFP-CERTIFIED® Apoptosis/Necrosis Detection Kit
Troponin I ELISA Kit
ROS-ID® Hypoxia/Oxidative Stress Detection Kit

Molecular Pharmacology

SCREEN-WELL® Cardiotoxicity Library
SCREEN-WELL® Hematopoietic Toxicity Library

Diagnosis & Monitoring

11-dh-TXB₂ ELISA Kit
COX Activity Assay
Natriuretic Peptide Abs

Cardiovascular Diseases

Adiponectin ELISA Kit
Cytokine ELISAs
PGE₂ ELISAs

RELATED PRODUCTS

Immunohistochemistry

POLYVIEW® PLUS HRP Detection Kits
MULTIVIEW® Multiplex Detection Kits
HIGHDEF® Chromogens
Validated Antibodies

Immunoassays & Antibodies

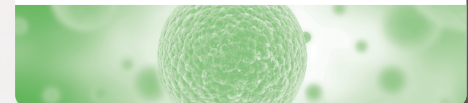
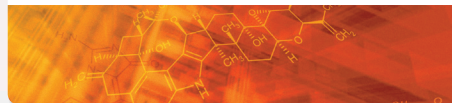
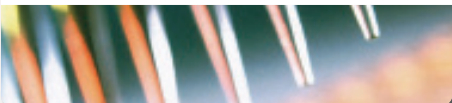
As a trusted manufacturer of thousands of widely cited and thoroughly validated ELISA kits and antibodies, we understand quality means delivering sensitivity, specificity, and consistency. With over 300 immuno-assay and detection kits, 3,000 antibodies, and a complete set of IHC reagents, Enzo enables sensitive and specific analysis of biomarkers for immune dysfunction to determine the source and consequence of the immunological response.

Small Molecule Chemistry

Enzo offers 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.

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.



A COMPLETE PORTFOLIO OF ASSAYS, ENZYMES & COMPOUNDS

Evaluate Vascular Growth, Inflammatory Responses and Coagulation

VASCULAR GROWTH AND MAINTENANCE

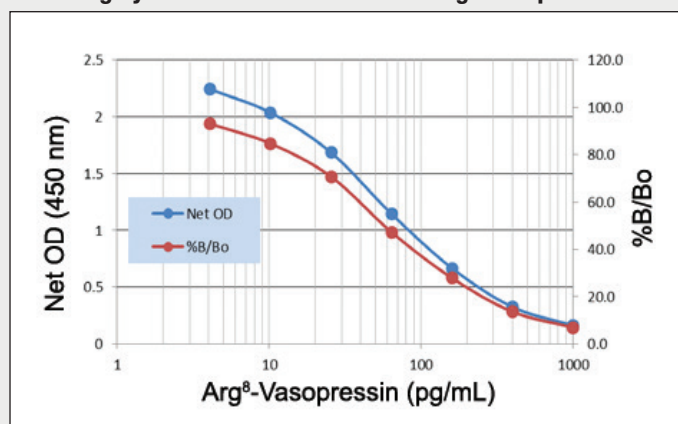
A Trusted Source for Arg⁸-Vasopressin Detection

Arg⁸-Vasopressin ELISA Kit (ADI-900-017A)

Also known as antidiuretic hormone, vasopressin is involved in blood vessel constriction and is linked to an increase in blood pressure.

- Specific detection with negligible reactivity towards related molecules
- Flexible use for sample types including urine, perfusates, plasma, tissue, and serum
- Widely cited in numerous peer-reviewed journals

Highly Sensitive Measurement of Arg⁸-Vasopressin



CLOTTING AND FIBRINOLYSIS	
PRODUCT NAME	PRODUCT #
11-dehydro-TXB2 ELISA kit	ADI-900-092
D-dimer, mAb (22)	BPD-ABS-015-22
CD31 Recombinant monoclonal antibody	ENZ-ABS347
GSNO	ALX-420-002
Polydatin	ALX-350-114
Puerarin	ALX-350-249

ANGIOGENESIS AND VASCULAR REGULATION	
PRODUCT NAME	PRODUCT #
Angiotensin A ELISA Kit	ADI-900-207
Angiotensin I ELISA Kit	ADI-900-203
Angiotensin II ELISA Kit	ADI-900-204
MMP-2 Colorimetric Drug Discovery Assay	BML-AK408
ROS-ID [®] Hypoxia/Oxidative Stress Detection Kit	ENZ-51042
ROS-ID [®] NO Detection Kit	ENZ-51013
VEGF (human) ELISA Kit	ENZ-KIT156

INFLAMMATION & DISEASE

Flexible Formats for Quantification of Prostaglandins

PGE₂ Immunoassays

Prostaglandin E₂ is an eicosanoid closely associated to the thromboxanes, and can act as a potent vasodilatory agent, as well as being pyrogenic during infection.

- Ultrasensitive ELISAs to measure as little as 8.26 pg/mL PGE₂
- Compatible with culture supernatants, serum, saliva, urine, whole blood and more
- Widely cited in peer-reviewed literature for decades
- High-throughput assays in colorimetric, chemiluminescent, and fluorescent readouts

PGE ₂ IMMUNOASSAYS	
PRODUCT NAME	PRODUCT #
PGE ₂ CLIA (chemiluminescent) Kit	ADI-910-001
PGE ₂ ELISA Kit	ADI-900-001
PGE ₂ FPIA (fluorescent) Kit	ADI-920-001
PGE ₂ High Sensitivity ELISA Kit	ADI-930-001

INFLAMMATION	
PRODUCT NAME	PRODUCT #
CRP (human) ELISA Kit	ENZ-KIT102
IL-1 Receptor Type I (human):Fc (human)(recombinant)	ALX-522-057
IL-2 (human), (recombinant)	ENZ-PRT254
IL-6 (human), High Sensitivity ELISA Kit	ENZ-KIT178
IL-8 (human) ELISA Kit	ADI-900-156A
IL-10 (human) ELISA Kit	ADI-900-036
IL-33 (human) ELISA Kit	ADI-900-201
IL-33, mAb (Nessy-1)	ALX-804-840
IL-35 (human):Fc (human)(recombinant)	ALX-522-140

VASCULAR DISEASES	
PRODUCT NAME	PRODUCT #
Adiponectin ELISA Kit	ALX-850-377
CYTO-ID [®] Autophagy Detection Kit 2.0	ENZ-KIT175
VEGF (human), ELISA Kit	ENZ-KIT156

MONITOR SIGNAL TRANSDUCTION IN CARDIAC MUSCLE

High-Purity Antibodies & Flexible Activity Assays for Complete Analysis of Cardiac Activity

MONITOR CALCIUM MOBILIZATION

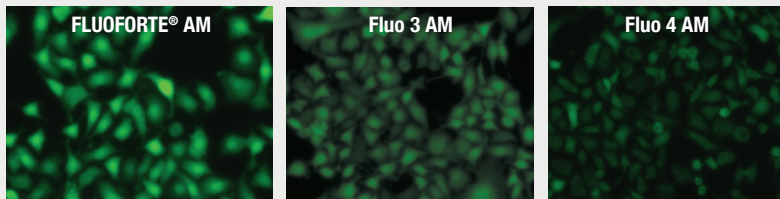
A Brighter, More Robust Fluorescent Assay for Calcium Mobilization

FLUOFORTE® Calcium Assay Kits (ENZ-51017)

Intracellular calcium mobilization is critical to maintaining cellular depolarization during ventricular contraction. Enzo's FLUOFORTE® dyes are optimized for high-throughput detection of intracellular calcium in living cells such as cardiomyocytes.

- Dye optimized for superior cell-permeability and retention
- Economical alternative developed for use with conventional dual-dispensing microplate readers
- Provides EC50 values comparable to Fluo-4 and Calcium 4
- Optional red dye enables multiplexing with green fluorophores

Superior Detection of Calcium Mobilization Compared to the Competition



PRODUCT NAME	PRODUCT #
FLUOFORTE® Calcium Assay Kit for Microplates, 10 plates	ENZ-51016
FLUOFORTE® Calcium Assay Kit for Microplates, 100 plates	ENZ-51017
FLUOFORTE® Reagent, 5x50 µg	ENZ-52014
FLUOFORTE® Reagent, 1 mg	ENZ-52015
GFP-CERTIFIED® FLUOFORTE® Assay Kit for Microplates	ENZ-51020
GFP-CERTIFIED® FLUOFORTE® Reagent	ENZ-52016

FLUOFORTE® exhibits significantly brighter fluorescence intensity than Fluo-3 AM and Fluo-4 AM. U-2 OS cells were seeded overnight, growth medium was removed, and cells were incubated with 100 µL of FLUOFORTE® AM, Fluo-3 AM, or Fluo-4 AM in HHBS at 37 °C, 5% CO₂ incubator for 1 hour. The cells were washed twice with 200 µL HHBS, and ATP (20 µL/well) was added to achieve concentrations of 200 nM with dye efflux inhibitor. Cells were then immediately imaged with a fluorescence microscope (Olympus IX71) using FITC channel.

SCREEN FOR INHIBITORS OF PHOSPHATASE ACTIVITY

Highly-Cited Assay for Detection of Calcineurin Activity in Cardiac Myocytes

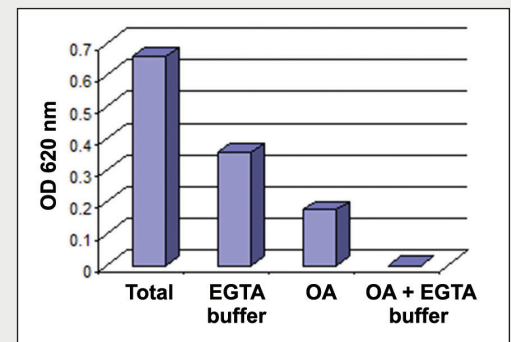
Calcineurin Cellular Activity Assay (BML-AK816)

Calcineurin, a protein phosphatase involved in immune cell signaling, is a target for inhibitors, such as everolimus, which are used following heart transplantation to prevent rejection.

- Uses RII phosphopeptide, the most efficient and selective calcineurin substrate
- Convenient 1-step detection
- Suitable for high-throughput cellular analysis
- Simple non-radioactive detection

Phosphatase activity from a freshly prepared mouse brain extract. Prior to gel filtration, the extract was diluted 1:1 in lysis buffer containing protease inhibitors. After gel filtration and prior to the phosphatase assay, the extract was diluted 1:25 in lysis buffer. The reaction was incubated for 30 min at 30°C.

Cellular CaN Assay: Mouse Brain Tissue



RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM

Highly Sensitive ELISA Kits and Validated Antibodies

Renin-Angiotensin-Aldosterone System

The renin-angiotensin-aldosterone system (RAAS) is a critical regulator of blood volume and systemic vascular resistance. It is composed of three major compounds: renin, angiotensin II, and aldosterone.

- The RAAS functions to elevate blood volume and arterial tone in a prolonged manner. It does this by increasing sodium reabsorption, water reabsorption, and vascular tone.
- Pharmacologically, the RAAS is a frequently manipulated system in the management of heart failure, hypertension, diabetes mellitus, and acute myocardial infarction.

PRODUCT NAME	PRODUCT #
ACE1 (human), (recombinant)	ENZ-PRT156
ACE2 polyclonal antibody	ENZ-ABS822
Aldosterone ELISA Kit	ADI-900-173
Angiotensin II receptor AT2 polyclonal antibody	ADI-905-746
Renin (human), (recombinant) (active)	ENZ-PRT193

QUANTIFY CARDIOVASCULAR BIOMARKERS

A Full Range of Antibodies, Detection and Activity Assays for the Reliable Detection of Cardiac Disease Biomarkers

RISK FACTORS OF CARDIOVASCULAR DISEASE

Quantitate Lp-PLA₂ Activity *In Vitro* PLAQPRO™ Lp-PLA₂ Assay (ENZ-KIT179)

Lipoprotein-associated phospholipase A2 (Lp-PLA2) is a calcium-independent lipase primarily produced by monocytes and macrophages, and it is recognized as an independent risk factor for cardiovascular disease (CVD).

- Wide analytical measurement range from 0 – 400.0 nmol/min/mL
- Analytical sensitivity of 0.236 nmol/min/mL
- Designed to run on automated clinical chemistry analyzers
- Ready-to-use calibration standards and QC controls are provided

PREVENTION, DIAGNOSIS & MONITORING

PRODUCT NAME	PRODUCT #
11-dehydro-TXB ₂ ELISA Kit	ADI-900-092
ADMA (human) ELISA Kit	ALX-850-323
ADMA direct (mouse/rat) ELISA Kit	ALX-850-327
Bufalin	BML-AP303
COX-2 (human), ELISA Kit	ADI-900-094
Eicosapentaenoic Acid	BML-FA001
Gingerol	BML-CA422
mTOR (human FRB Domain) Polyclonal Antibody	ALX-215-065-1
mTOR inhibitor WYE-23	ENZ-CHM136
Rapamycin	BML-A275
TXB ₂ ELISA Kit	ADI-900-002

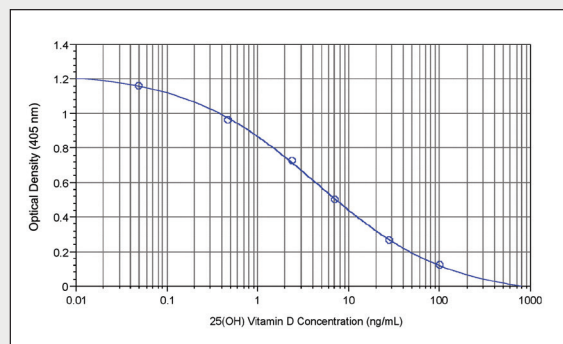
VITAMIN D DEFICIENCY

The Fastest High-Sensitivity Vitamin D ELISA 25(OH) Vitamin D ELISA Kit (ADI-900-215)

Low levels of vitamin D, an essential secosteroid, has been linked with an increased risk of heart disease and hypertension. Precise measurements of 25-hydroxyvitamin D in serum are critical to identify cardiac risk factors and to prevent vitamin D deficiency. The 25(OH)-Vitamin D assay is quick and accurate, making it the tool of choice for 25(OH)-Vitamin D detection.

- Rapid incubation times ensure results in as little as 1.5 hours
- Wide detection range allows more precise quantification than by blot analysis

25(OH) Vitamin D ELISA Kit Standard Curve



RELATED PRODUCTS

PRODUCT NAME	PRODUCT #	PRODUCT NAME	PRODUCT #
25-Hydroxyvitamin D3	BML-DM100	Osteoprotegerin (human) ELISA Kit	ALX-850-280
1 α , 25-Dihydroxyvitamin D3	BML-DM200	RANKL (total), soluble (human) ELISA Kit	ALX-850-019

CARDIOVASCULAR DRUG DISCOVERY

Innovative Tools for Profiling Cardiac Toxicity

SCREEN-WELL® Cardiotoxicity Library (BML-2850)

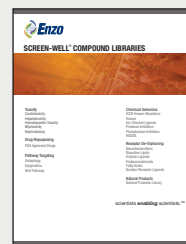
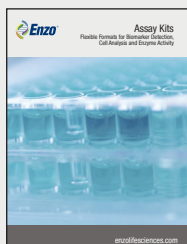
The SCREEN-WELL® Cardiotoxicity Library is a focused collection of 130 compounds with defined and diverse cardiotoxicity. The library includes a variety of structurally and mechanistically different compound classes, as well as non-toxic controls. The compounds are dissolved in DMSO at 10 mM and aliquoted into deep-well plates. The library is an essential tool for predictive toxicology screening and assay development.

- Arrhythmia
- Cardiomyocyte Apoptosis
- Carditis
- Fibrosis
- Hypotension/Hypertension
- Ion Channel Blockage
- Mitochondrial Toxicity
- Non-cardiotoxic Controls
- Thrombosis

RELATED PRODUCTS

PRODUCT NAME	PRODUCT #
SCREEN-WELL® Autophagy Library	BML-2837
SCREEN-WELL® Bioactive Lipids Library	BML-2840
SCREEN-WELL® Epigenetics Library	BML-2836
SCREEN-WELL® FDA-Approved Drug Library	BML-2843
SCREEN-WELL® Hematopoietic Toxicity Library	BML-2852
SCREEN-WELL® Ion Channel Ligand Library	BML-2805
SCREEN-WELL® Wnt Library	BML-2838

You may also be interested in:



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Put our experience to work for you!

Our broad range of scientific expertise and manufacturing capabilities enables us to provide a comprehensive set of tools for cardiovascular research to save you time and money.