

# The VICTOR<sup>3</sup> Multilabel Plate Reader



All you need for  
any application

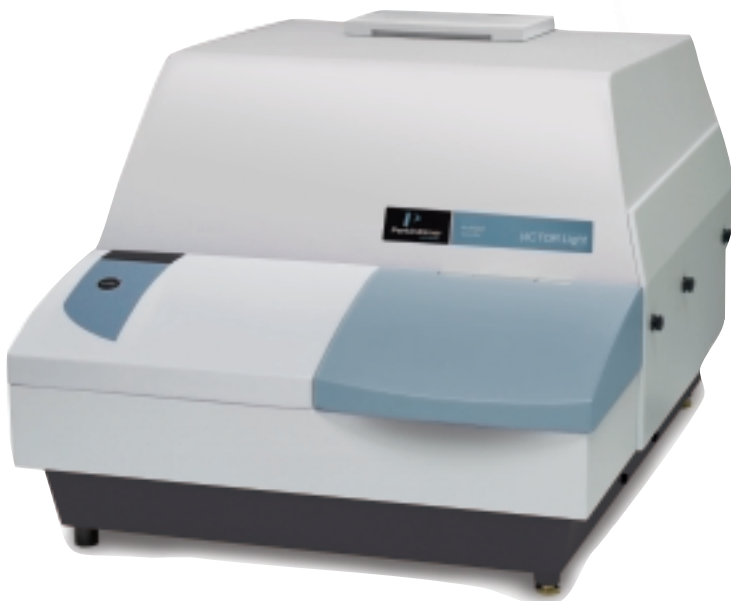
is sitting right on your bench.

# Get the Most Out of Your VICTOR<sup>3</sup>!

You purchased a Wallac VICTOR<sup>3</sup><sub>TM</sub> Multilabel Plate Reader from PerkinElmer because it's the most flexible, versatile and reliable plate reader available today. But are you really getting the most from it?

You may be using your VICTOR<sup>3</sup> for just a few applications. But did you know it can handle a **wide range of applications** in many assay formats? You may be able to **do much more** with your VICTOR<sup>3</sup> than you are now!

PerkinElmer can help you **use your VICTOR<sup>3</sup> to its full potential** with our assay systems and reagents optimized for use on your VICTOR<sup>3</sup> reader.



# Versatile VICTOR<sup>3</sup> handles all your

## Cell-based Assays: Cell Proliferation and Cytotoxicity Assays

For those whose interests lie in cellular processes, PerkinElmer offers fully optimized luminescence and time-resolved fluorescence assay systems for the quantitative evaluation of cell proliferation and cytotoxicity. These systems provide a choice of assay conditions and throughput sure to suit your needs. The broad range of PerkinElmer cell-based assays your VICTOR<sup>3</sup> can perform are described below.

### **Luminescence ATP Detection Assay System**

Here is a two-step mix-and-measure assay that provides high sensitivity and excellent linearity for ATP monitoring in cultured mammalian cells. The simplicity and speed of this assay make it an excellent tool to assess the cytotoxic, cytostatic and proliferative effects of a wide range of drugs, biological response modifiers and biological compounds.

The system's long Constant-Quanta™ glow signal produces a long-lived glow type signal with a half-life of greater than five hours. You can run several microplates at the same time and more samples in a single experiment.

### **1step™ Luminescence ATP Detection Assay System**

Need an easy high throughput solution? The one-step addition, short equilibrium time and high light output of the ATPlite 1step assay make it ideal for continuous process systems such as in-line systems.

This sensitive assay is simple and reproducible requiring only one reagent addition step and no separation steps. The luminescent signal is read within 30 minutes after adding the reagent, but the high light output allows a short counting time on the VICTOR<sup>3</sup>, increasing the number of samples you can process.

#### Products

ATPlite Assay Kit\*, 300 points  
6016943

ATPlite Assay Kit\*, 1,000 points  
6016941

\* Assay points per kit based on 96-well microplates.

#### Products

ATPlite 1step Assay Kit, 10 mL  
6016736

ATPlite 1step Assay Kit, 100 mL  
6016731

ATPlite 1step Assay Kit, 1,000 mL  
6016739

# research applications.

## **DELFIA Cell Proliferation Assay Kit**

This popular assay is a time-resolved fluoroimmunoassay using PerkinElmer's exclusive DELFIA® technology, a heterogeneous time-resolved fluorometric assay (TRF) method. The assay is based on the incorporation of BrdU into newly synthesized DNA strands of proliferating cells cultured in microplates. (Incorporated BrdU is detected using a europium-labeled monoclonal antibody.)

The fluorescence measured is proportional to the DNA synthesis in the cell population of each well. You can run this assay on your VICTOR<sup>3</sup> for the direct assessment of cell numbers, and also assay for cytotoxic effects as an endpoint measurement. The assay can be used with adherent cells as well as with cells in suspension. It is an ideal, non-isotopic substitute for <sup>3</sup>H-Thymidine uptake assays in combination with your VICTOR<sup>3</sup>.

### Products

DELFIA Cell Proliferation Kit,  
10 x 96 wells  
AD0200

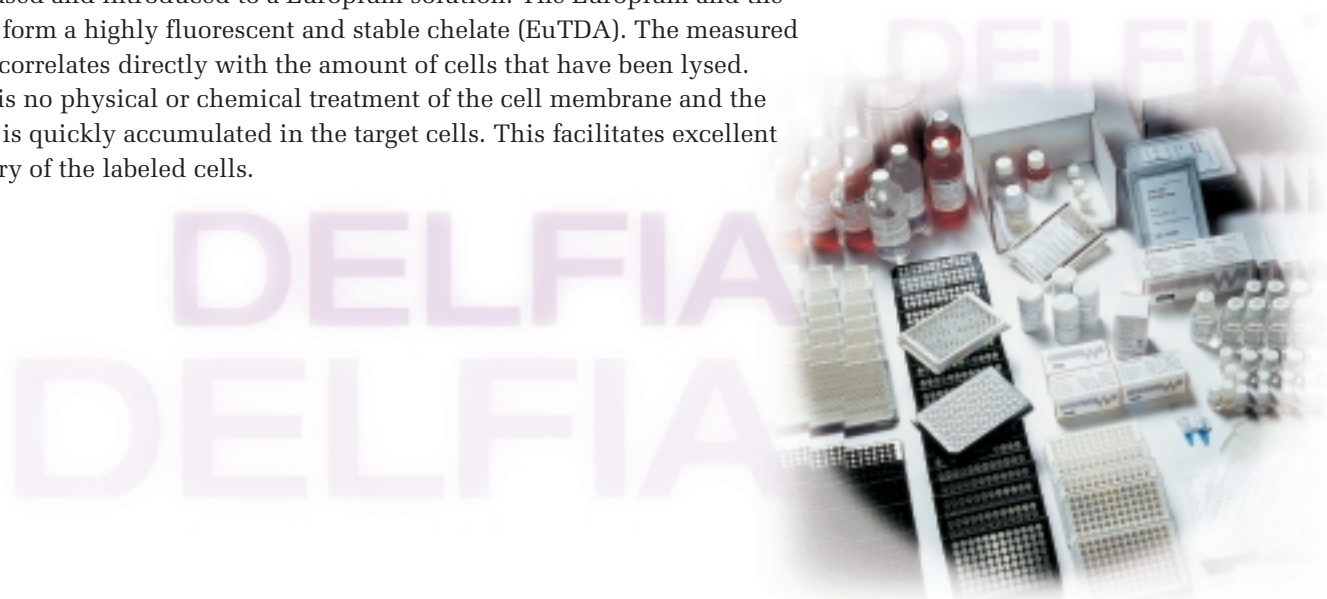
## **DELFIA Cytotoxicity Reagent Pack**

Cell death can be analyzed on your VICTOR<sup>3</sup> using DELFIA technology to study cell membrane lysis, providing sensitivity similar to <sup>51</sup>Cr-release assays. The DELFIA Cytotoxicity Reagent Pack contains all of the reagents necessary to perform the assay with your VICTOR<sup>3</sup>. Reagents are also sold separately.

The method is based on loading target cells with an acetoxymethyl ester of a fluorescence enhancing ligand (BATDA). The ligand penetrates the cell membrane quickly where ester bonds are hydrolyzed to form a hydrophilic ligand (TDA) which no longer passes through the membrane. After cytolysis the ligand is released and introduced to a Europium solution. The Europium and the ligand form a highly fluorescent and stable chelate (EuTDA). The measured signal correlates directly with the amount of cells that have been lysed. There is no physical or chemical treatment of the cell membrane and the ligand is quickly accumulated in the target cells. This facilitates excellent recovery of the labeled cells.

### Products

DELFIA EuTDA Cytotoxicity Reagents  
Pack, 10 x 96 wells  
AD0116



## TruPoint™ Caspase Kits

Cysteine proteases called caspases play a central role in the initiation of the apoptotic cascades. Through our TruPoint™ platform, PerkinElmer offers several caspase assay systems that allow you to evaluate apoptotic cell death using your VICTOR<sup>3</sup> reader.

Our homogeneous TruPoint platform is a unique combination of two technologies. One is time-resolved fluorometry (TRF) for signal detection and measurement. The other is our SignalClimb™ technology, which provides high quenching efficiency and purity of quenched peptides. The result is an increased signal for extra sensitive caspase assays with high Z' factors.

TruPoint systems are available for caspase-3, caspase-6, and caspase-8. Each of these assays effectively measures caspase activity from apoptotic cell lysates or purified enzymes.

### Products

TruPoint Caspase-3 Assay Kit,  
2 x 384 wells  
AD0125

TruPoint Caspase-3 Assay Kit,  
50 x 384 wells  
AD0126

TruPoint Caspase-6 Assay Kit,  
2 x 384 wells  
AD0146

TruPoint Caspase-6 Assay Kit,  
50 x 384 wells  
AD0147

TruPoint Caspase-8 Assay Kit,  
2 x 384 wells  
AD0148

TruPoint Caspase-8 Assay Kit,  
50 x 384 wells  
AD0149

TruPoint Caspase-3 Assay Kit<sup>®</sup>,  
3 x 96 wells  
AD0245

TruPoint Caspase-3 Assay Kit<sup>®</sup>  
w/o plates, 288 assays  
AD0246

### Selection Guide: Cell Proliferation and Cytotoxicity Assays on VICTOR<sup>3</sup>

Assay Requirements	Recommended Product
Continuous process systems Simple and fast ATP readings	ATP <sup>lite</sup> 1step Assay System
High sensitivity ATP readings	ATP <sup>lite</sup> Assay System
Sensitive and reliable measurement of DNA synthesis Eliminate use of radioactivity	DELFI A Cell Proliferation Kit
Sensitive and reliable measurement of cell lysis Eliminate use of radioactivity	DELFI A Cytotoxicity Assay Reagents
Sensitive and reliable evaluation of apoptotic cell death	TruPoint Caspase-3 Kit



## Reporter Gene Assays

Our easy-to-use “**lite**” family of luminescence assay systems extends to gene reporter assays too. These homogeneous mix-and-measure assays simplify the testing process and provide high sensitivity over a wide dynamic range. Plus, they provide the flexibility suited to your lab’s processing and throughput needs. Both systems can be formatted in 96, 384 or 1536 wells, all easily handled by your VICTOR<sup>3</sup>.

### **Luminescence Reporter Gene Assay System**

**briteLite**<sup>™</sup> is an ultra-high sensitivity reporter gene assay that provides an extremely strong signal for remarkably accurate and thorough firefly luciferase readings. The assay detects and clearly highlights a wide range of luciferase content levels making it ideal for continuous process systems.

Note: Assay volume is dependent on microplate density. Bulk quantity assay kits are also available. Please contact your PerkinElmer representative for additional details.

- Products**
- [briteLite Assay Kit, 10 mL](#)  
6016976
  - [briteLite Assay Kit, 100 mL](#)  
6016971
  - [briteLite Assay Kit, 1,000 mL](#)  
6016979

### **Luminescence Reporter Gene Assay System**

**steadyLite HTS**<sup>™</sup> is a long-lived high-sensitivity reporter gene assay specifically designed for large-batched processing. **steadyLite HTS** delivers a signal half-life of 4 to 5 hours, allowing time to run additional tests while waiting to measure processed plates.

Note: Assay volume is dependent on microplate density. Bulk quantity assay kits are also available. Please contact your PerkinElmer representative for additional details.

- Products**
- [steadyLite HTS Assay Kit, 10 mL](#)  
6016986
  - [steadyLite HTS Assay Kit, 100 mL](#)  
6016981
  - [steadyLite HTS Assay Kit, 1,000 mL](#)  
6016989

*Selection Guide: Reporter Gene Assays on VICTOR<sup>3</sup>*

<b>Assay Requirements</b>	<b>Recommended Product</b>
Continuous processing High sensitivity	<b>briteLite</b>
Large batch processing Moderate sensitivity	<b>steadyLite HTS</b>

## Binding Assays: Receptor Binding Assays, GTP Binding Assays and Immunoassays

Any type of binding assay can be run on your VICTOR<sup>3</sup> using PerkinElmer's exclusive DELFIA technology. DELFIA technology is a heterogeneous time-resolved fluorometric assay method in which an enhancement step assures high sensitivity and a wide response range for immunoassays and other types of binding assays. This robust, easy-to-use platform provides an excellent alternative to either ELISA or RIA, eliminating assay steps or the use of radioactivity.

Your VICTOR<sup>3</sup> and our sensitive DELFIA technology also provide a powerful non-isotopic alternative for demanding receptor ligand binding assays. With detection limits as low as 1 attomole of Europium-labeled compound per well, DELFIA technology lets you use recombinant and endogenous receptor membranes, even those with low expression levels.

### DELFIA Ligands

PerkinElmer offers a range of Europium-labeled ligands for setting up DELFIA receptor-ligand binding assays. You can design your assays using our SignalScreen<sup>®</sup> or Membrane Target System (MTS) cloned receptors and AcroWell™ Filter Plates. For easy assay set-up, use DELFIA L\*R Wash Solution and DELFIA L\*R Binding Buffer. After incubation, unbound ligand is removed by filtration then signal is enhanced using DELFIA Enhancement Solution.

You can also set up your assays using adherent cell lines on cell culture plates, such as PerkinElmer's Isoplate™ microplates, or as solid phase assays using streptavidin-coated microplates and biotinylated wheat germ agglutinin. However you choose to set up your receptor ligand binding assays, VICTOR<sup>3</sup> lets you count them quickly and reliably.

#### Products

Bombesin, Eu-labeled, 150 pmol AD0227	NDP- $\alpha$ MSH, Eu-labeled, 800 pmol AD0226
Bombesin, Eu-labeled, 600 pmol AD0228	Neurotensin, Eu-labeled, 200 pmol AD0219
EGF, Eu-labeled, 350 pmol AD0217	Neurotensin, Eu-labeled, 750 pmol AD0220
EGF, Eu-labeled, 1,400 pmol AD0218	Neurokinin A, Eu-labeled, 300 pmol AD0221
Galanin, Eu-labeled, 200 pmol AD0215	Neurokinin A, Eu-labeled, 1,200 pmol AD0222
Galanin, Eu-labeled, 850 pmol AD0216	Substance P, Eu-labeled, 200 pmol AD0223
Interleukin-2, Eu-labeled, 650 pmol CR401-650	Substance P, Eu-labeled, 800 pmol AD0224
Interleukin-4, Eu-labeled, 60 pmol CR403-060	TNF $\alpha$ , Eu-labeled, 600 pmol CR400-600
Interleukin-5, Eu-labeled, 400 pmol CR402-400	DELFIA Enhancement Solution, 50 mL 1244-104
Interleukin-8, Eu-labeled, 160 pmol AD0213	DELFIA Enhancement Solution, 250 mL 1244-105
Interleukin-8, Eu-labeled, 700 pmol AD0214	DELFIA Enhancement Solution, 1,000 mL 4001-001
Motilin, Eu-labeled, 60 pmol AD0208	DELFIA L*R Wash Solution Concentrate (25X), 250 mL CR135-250
Motilin, Eu-labeled, 240 pmol AD0209	DELFIA L*R Binding Buffer Concentrate, 250 mL CR134-250
NDP- $\alpha$ MSH, Eu-labeled, 200 pmol AD0225	AcroWell Filter Plate, 10 plates P5020



## DELFIA Neurotensin Receptor Binding Kit

This kit contains all the necessary components to perform a neurotensin receptor binding filtration assay, including DELFIA Eu-labeled neurotensin, unlabeled human neurotensin, human neurotensin NT1 receptor, DELFIA L\*R Binding Buffer (10X), DELFIA L\*R Wash Solution (25X), Enhancement Solution, and AcroWell Filter Plates (2 x 96-well plates).

DELFIA Eu-labeled neurotensin and the ligand specific receptor are incubated on an AcroWell Filter Plate after which the unbound labeled ligand is removed by filtration. Europium is dissociated from the bound ligand by using DELFIA Enhancement Solution.

## DELFIA GTP Binding Kit

VICTOR<sup>3</sup> works well for other signal transduction assays too. Our DELFIA GTP Binding Kit lets you optimize the conditions for screening novel agonists against a GPCR of interest. The kit is based on GDP-GTP exchange on G-protein subunits followed by GPCR activation by agonists. All GPCR membrane preparations need different conditions for GTP binding. The kit provides the instructions and tools for optimizing these conditions.

## DELFIA cAMP Assay Kit

Our sensitive, nonisotopic immunoassay for the quantitative determination of cAMP is designed for cell culture, plasma, or urine samples. The assay can be run on the VICTOR<sup>3</sup> with three different protocols, basic, simple, and high sensitivity. The basic and high sensitivity protocols involve adherent cells. In the simple protocol, the determination is from cells in suspension, and all the steps from sample preparation to measurement of fluorescence are preformed on a DELFIA microplate. The sensitivity of the 384-well kit is at least 0.1 ng/well (0.28 pmol/well) when using the simple assay protocol. When using the high sensitivity protocol the sensitivity is at least 0.1 pg/well (0.28 fmol/well).

## DELFIA Reagents

Running RIAs or ELISAs? Convert your existing assays to DELFIA and realize the added safety, performance, and convenience of DELFIA technology.

Visit our DELFIA literature page at <http://las.perkinelmer.com/content/featured/DELFIAliterature.html> and download our Applications Guides for details about reagents and procedures for converting your assays.

### Products

DELFIA Neurotensin Receptor Binding Kit, 2 x 96 wells  
AD0257

### Products

DELFIA GTP Binding Kit, 10 x 96 wells  
AD167

DELFIA GTP Reagents, GTP-Eu (1.65 nmol) and GTP $\gamma$ S (275 nmol) for 960 wells  
AD0260

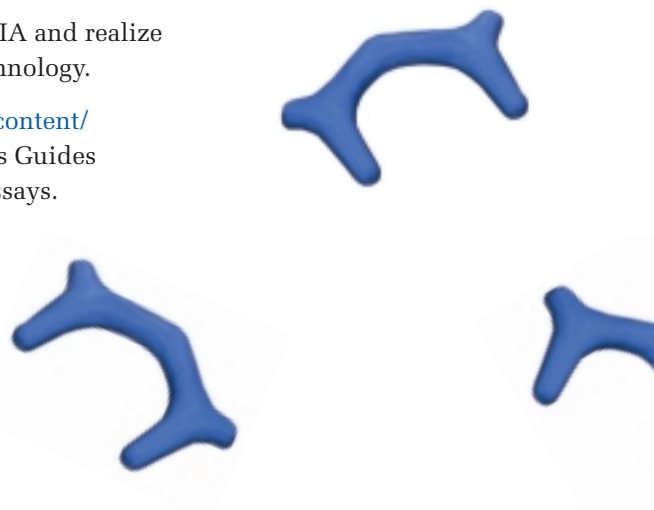
DELFIA GTP Reagents, Components for GTP Binding Buffer and Wash Solution for 960 wells  
AD0261

DELFIA cAMP Assay Kit, 10 x 384 wells  
4004-0010

DELFIA cAMP Assay Kit, 2 x 384 wells  
CR92-102

DELFIA cAMP Assay Kit, 10 x 96 wells  
4003-0010

DELFIA cAMP Assay Kit, 2 x 96 wells  
CR89-102





## Kinetic Assays

### TruPoint Beta-Secretase Assay Kit<sup>384</sup>

$\beta$ -secretase (also referred to as BACE1, BACE, Asp2 protease, Memapsin-2 or  $\beta$ -site APP cleaving enzyme) is an aspartic protease that has been identified as a key enzyme in deposition of  $\beta$ -amyloid (A $\beta$ ) found in plaques involved in Alzheimer's disease.

The TruPoint Beta-Secretase Assay Kit<sup>384</sup> measures BACE1 enzyme activity. Based on proprietary SignalClimb technology, TruPoint Beta-Secretase reagents can be used in sensitive, robust and homogeneous time-resolved fluorescence  $\beta$ -secretase assays. Assay conditions have been optimized for compound screening and in the detection of BACE1 enzyme even in biological materials.

The homogeneous TruPoint platform utilizes the SignalClimb technology based on the close proximity of two labels. One is a fluorescent lanthanide chelate and the other is a suitable organic quencher molecule. In this assay, the TruPoint BACE1 substrate is a ten amino acids long peptide, with a fluorescent europium (Eu) chelate coupled to one end and a quencher of europium fluorescence (QSY<sup>®</sup> 7) to the other end via lysine. If the sample contains BACE1 activity, the europium chelate and the quencher will be separated as the substrate is cleaved. The Eu-signal increases and it can be measured on a VICTOR<sup>3</sup> with the TRF-option.

#### Products

TruPoint Beta-Secretase Assay Kit<sup>384</sup>,  
1536 assays  
AD0258

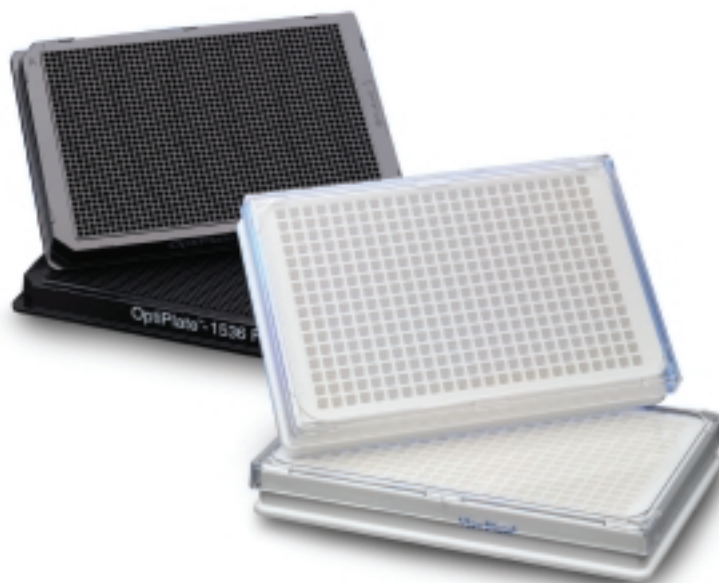
TruPoint Beta-Secretase Assay Kit<sup>384</sup>,  
15360 assays  
AD0259

## Complementary Microplates

For complementary microplates please refer to our Microplate Overview Guide (007097\_01) which can be found at [www.perkinelmer.com/microplates](http://www.perkinelmer.com/microplates).

## Get the most out of your VICTOR<sup>3</sup>!

Why not run all the applications you can on your versatile VICTOR<sup>3</sup>? For more details about any of these assays or assistance with other applications, call us at 1-800-762-4000 or visit our website at [www.perkinelmer.com](http://www.perkinelmer.com).



**PerkinElmer Life and  
Analytical Sciences**  
710 Bridgeport Avenue  
Shelton, CT 06484-4794 USA  
Phone: (800) 762-4000 or  
(+1) 203-925-4602  
[www.perkinelmer.com](http://www.perkinelmer.com)



---

For a complete listing of our global offices, visit [www.perkinelmer.com/lasoffices](http://www.perkinelmer.com/lasoffices)

©2004 PerkinElmer, Inc. All rights reserved. The PerkinElmer logo and design and SignalScreen are registered trademarks of PerkinElmer, Inc. ATPlite, ATPlite 1step, Constant-Quanta, Isoplate, TruPoint, SignalClimb and VICTOR<sup>3</sup> are trademarks and DELFIA and SignalScreen are registered trademarks of PerkinElmer, Inc. or its subsidiaries, in the United States and other countries. QSY is a registered trademark of Molecular Probes, Inc. AcroWell is a trademark of Pall Corporation. All other trademarks not owned by PerkinElmer, Inc. or its subsidiaries that are depicted herein are the property of their respective owners. PerkinElmer reserves the right to change this document at any time without notice and disclaims liability for editorial, pictorial or typographical errors.