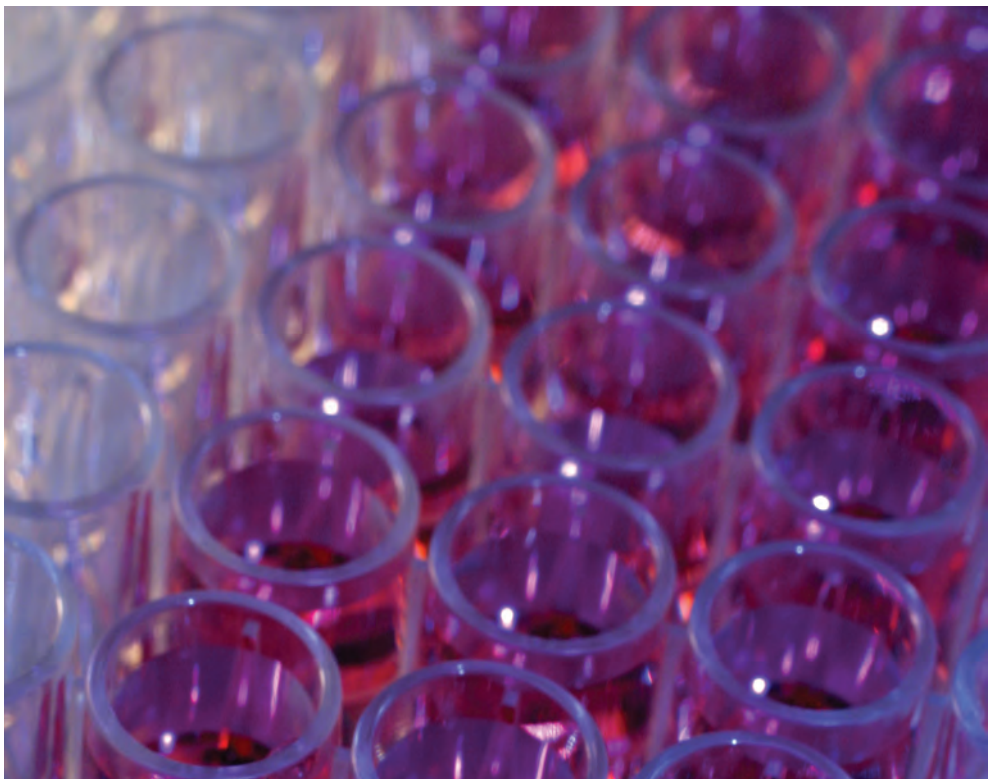
DELFIA Assay Systems



Range | Sensitivity | Stability

PerkinElmer®

Choose DELFIA when you need sensitivity, wide dynamic range and

PerkinElmer's DELFIA® (Dissociation-Enhanced Lanthanide Fluorescent Immunoassay) technology is an established time-resolved fluorometric (TRF) assay technology that offers a superior alternative to traditional ELISA technology. Our DELFIA assays are significantly more sensitive, generally have a broader dynamic range and are more robust as the reporter is not enzyme-based. Particularly well-suited for immunoassays and cell-based assays, the DELFIA signal is stable after a prolonged incubation, so you can read plates weeks later. DELFIA offers easy-to-use solutions for a broad application set (biochemical and cell-based assays) and can be multiplexed to detect multiple analytes in one sample, each with its individual signature.

Applications

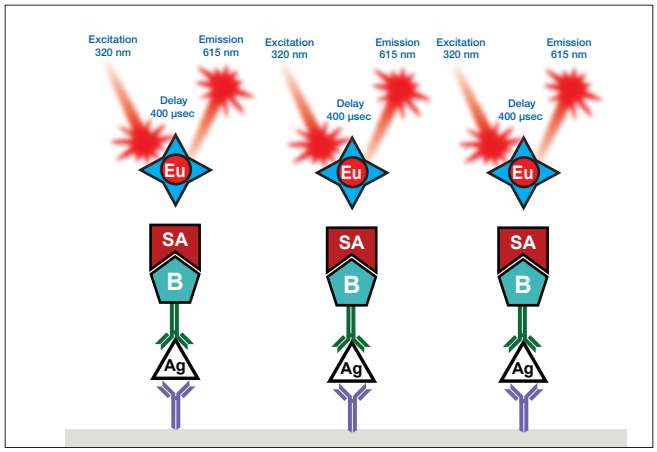
- Immunoassays
- GPCR functional assays, such as GTP binding
- Receptor-ligand binding assays
- Enzyme assays, such as kinase, protease, phosphatase and polymerase assays
- Adherent cell assays
- Cell adhesion assays
- Cell cytotoxicity (Cr51 release) and proliferation assays (tritiated thymidine uptake) non-rad alternative
- Other binding assays include protein-protein, protein-peptide and protein-DNA

Features & Benefits

- High sensitivity: uses less reagents to detect small quantities of analyte
- Supports multiplexing: profiles a set of related analytes in a single sample and obtains multiple responses from one sample well, lowering costs while increasing assay information value
- Stable signal: allows delayed reading of plates after prolonged incubations, even weeks later
- No sample interference during measurement
- Flexible: 96-well and 384-well plate formats and coated plate, adherent cell and filtration assays
- Wide dynamic range: eliminates sample dilution and re-assay
- Stable: >1-year stability enables flexible ordering and budgeting

More sensitive than traditional ELISA assays

Combining high sensitivity, wide dynamic range and multiplexing capability, DELFIA is the ideal alternative to traditional ELISA methods. Unlike traditional ELISA, DELFIA ELISA is not time-dependent and does not require stop solution. The flexibility of this method allows your existing ELISA assay to be easily transformed into a successful DELFIA assay.



DELFIA Assay Principle.

signal stability

DELFIA assays offer key benefits in your application area

Application	Advantage	Additional PerkinElmer Literature*
General	• Well-proven technology • High sensitivity • Wide dynamic range • Multi-label assays possible	• Advice for setting up robust DELFIA binding assay (1234-979) • Multiplexing DELFIA assays using lanthanide-labeled probes (1234-9847) • Applications of time-resolved fluorometry with the DELFIA method (1244-1126) • DELFIA Buffers Guide (P10978)
Immunoassays	• Unbeatable sensitivity, dynamic range, and consistency of results • More than 1000 scientific references	• How to optimize rapid and simple immunoassays (1234-976) • DELFIA assays bring convenience in monoclonal antibody development (1234-966)
Ligand-Receptor binding assays	• Stable non-radioactive reagents even for chemokines • Sensitive assays, even membranes with low expression levels, can be used • Ready-made protocols with commercially available receptors	• The AcroWell plate: Low Fluorescence Background using the DELFIA system (1420-1000) • DELFIA Ligands Guide
Kinase assays	• High sensitivity, giving savings on costly enzymes	• DELFIA protein kinase assays (1234-968) • Sensitive DELFIA Abl tyrosine kinase assay using poly (Glu, Ala, Tyr) substrate (1234-9844)
Adherent cell assays	• Monitor induction of up to three surface antigens in one well • Sensitive binding assays	• Several published articles
Cell adhesion assays	• Non-radiometric • Sensitive	• Cell adhesion assays (1234-969)
Cell cytotoxicity assays	• Range of sensitive methods to study necrosis, cell proliferation or apoptosis	• A new simplified, gentle cell-labelling method for non-radioactive cytotoxicity assays (1234-967) • A new cell based DELFIA proliferation assay for measurement of DNA synthesis in microplate format (1234-9866) • A new cell-based DNA fragmentation assay for testing apoptotic effect of lead compounds (1234-9864) • A DELFIA assay for inhibition of PARP (1234-9865)
Functional cell assays	• Non-radiometric, sensitive Eu-GTP binding kit	• Time-resolved fluorescence-based GTP binding assay for G-Protein coupled receptors (1234-9858)
Binding assays: Protein-Protein, Protein-Peptide and Protein-DNA	• High sensitivity • Selectivity testing using multilabel assays	• Several published articles

*For more information, please contact your local PerkinElmer representative.

DELFIA detection systems from research to HTS

The measurement of time-resolved fluorescence (TRF) is easily accomplished with multilabel readers that have a TRF option. PerkinElmer has a number of suitable multilabel reader instruments, namely EnVision®, and VICTOR™ *X*.

EnVision and VICTOR *X*

Various models of EnVision® and VICTOR are available to meet your specific application needs, and your speed and capacity requirements. When measuring DELFIA Eu-fluorescence on a 96-well plate, all of these instruments allow a detection limit better than 10 amol Eu/well in a measurement time approximately 2 minutes/plate. With a 384-well plate a detection limit better than 5 amol Eu/well is achieved with reading times of 3 and 5 minutes – on EnVision and VICTOR *X*, respectively. Based on your sensitivity requirements and throughput needs, EnVision provides flexibility to run more than 90,000 wells per day.

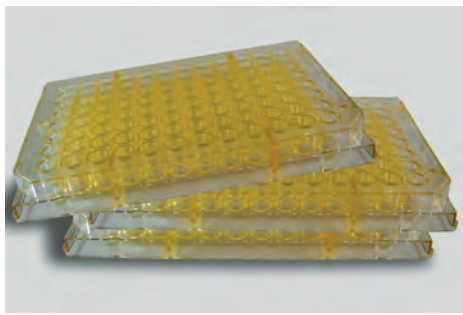
ViewLux™

For ultra-fast processing of 384-well plates the ultraHTS microplate imager allows detection of all samples on a microplate simultaneously.

Better Microplates Mean Better Results

Why trust generic microplates in a sensitive assay? PerkinElmer's microplates are optimized for our reagent technologies as well as our detection instruments.

For more information on our full range of optimized microplates, please visit www.perkinelmer.com/microplates



Protein Binding and Analyte Detection Assays (ELISA Conversion)

Setting up a sensitive binding assay is easy with our lanthanide labeled reagents binding to tagged proteins, peptides or other biomolecules.

Type of product	Amount	Part No.
DELFIA Eu-N1 labeled streptavidin	250 µg	1244-360
DELFIA Tb-N1 labeled streptavidin	1 mg	AD0048
DELFIA Sm-N1 labeled streptavidin	1 mg	AD0050
DELFIA Eu-N1 labeled anti-mouse antibody	1 mg	AD0207
DELFIA Eu-N1 labeled anti-rabbit antibody	1 mg	AD0106
DELFIA Eu-N1 labeled anti-human IgG	100 µg	1244-330
DELFIA Eu-N1 labeled anti-HA antibody	50 µg	AD0054
DELFIA Eu-N1 labeled anti-6xHis antibody	1 mg	AD0109
DELFIA Eu-N1 labeled anti-c-myc antibody	1 mg	AD0113
DELFIA Eu-N1 labeled anti-GST antibody	50 µg	AD0250

Ligand-Receptor Binding Assays

Type of product	Amount	Part No.
DELFIA Eu-labeled EGF	1400 pmol	AD0218
DELFIA Eu-labeled galanin	850 pmol	AD0216
DELFIA Eu-labeled interleukin-8	160 pmol	AD0213
DELFIA Eu-labeled NDP-αMSH	800 pmol	AD0226
DELFIA Eu-labeled neurotensin	200 pmol	AD0219
DELFIA Eu-labeled TNFα	600 pmol	CR400-600
DELFIA L*R binding buffer concentrate	250 mL	CR134-250
DELFIA L*R wash solution concentrate	250 mL	CR135-250

Cell Cytotoxicity and Cell Proliferation Assays

Type of product	Amount	Part No.
DELFIA Cell proliferation kit	960 assays	AD0200
DELFIA EuTDA cytotoxicity reagents	10 x 96 wells	AD0116
DELFIA Lysis buffer	30 mL	4005-0010
DELFIA Eu-solution for AD0116	200 mL	C135-100
DELFIA BATDA labeling reagent	50 µL	C136-100

Functional Cell Assays

Type of product	Amount	Part No.
DELFIA GTP-binding kit	10 x 96 wells	AD0167
DELFIA GTP-Eu Reagents (Eu-GTP and GTPγS)	same as in kit AD0167	AD0260

Kinase Assays

Type of product	Amount	Part No.
DELFIA Tyrosine Kinase kit	2 x 96 wells	AD0122
DELFIA Eu-N1 labeled anti-phosphotyrosine antibody (P-Tyr-100)	1 mg	AD0160
DELFIA Eu-N1 labeled anti-phosphotyrosine antibody (PY20)	1 mg	AD0039
DELFIA Eu-N1 labeled anti-phosphotyrosine antibody (PT66)	1 mg	AD0041
DELFIA Eu-N1 labeled anti-phosphothreonine antibody	10 µg	AD0092
DELFIA Eu-N1 labeled anti-phospho-(Ser) 14-3-3 motif antibody	10 µg	AD0189

DELFIA Labeling Reagents

Type of product	Amount	Part No.
DELFIA Eu-Labeling kit (Eu-N1 ITC chelate)	0.2 mg	1244-302
DELFIA Sm-Labeling kit (Sm-N1 ITC chelate)	0.2 mg	1244-303
DELFIA Eu-Labeling reagent (Eu-N1 ITC chelate & Eu standard)	1 mg (for labeling up to 5 mg of protein)	1244-301
DELFIA Eu-N1 iodoacetamido chelate & Eu standard	1 mg	AD0002
DELFIA Eu-DTPA amino chelate & Eu standard	1 mg	AD0023
DELFIA Eu-N1 DTA chelate & Eu standard	1 mg	AD0004

Microplates for DELFIA Assays

Type of product	Amount	Part No.
AcroWell filter plate, 96-well, pore size 0.45 µm	10 plates	P5020
DELFIA Microtitration Plate, 8 x 12 strips, clear plate	60 plates	1244-550
DELFIA Yellow Plate, 96-well	60 plates	AAAND-0001
DELFIA Streptavidin-coated yellow plate, 96-well	10 plates	AAAND-0005
DELFIA Streptavidin-coated white plate, 384-well	10 plates	CC11-H10
DELFIA Anti-mouse-coated yellow plate, 96-well	10 plates	AAAND-0003
DELFIA Anti-mouse-coated clear plate, 8 x 12 strips	10 plates	4007-0010
DELFIA Anti-rabbit-coated yellow plate, 96-well	10 plates	AAAND-0004

DELFIA Buffers

Type of product	Amount	Part No.
DELFIA Assay Buffer	1000 mL	4002-0010
DELFIA Wash Concentrate	1000 mL	4010-0010
DELFIA Enhancement Solution	1000 mL	4001-0010
DELFIA Enhancer	50 mL	C500-100
DELFIA Inducer	250 mL	4013-0010

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