



# The Complete DELFIA<sup>®</sup>

immunodiagnosics system

wallac

  
**PerkinElmer**<sup>®</sup>  
life sciences.

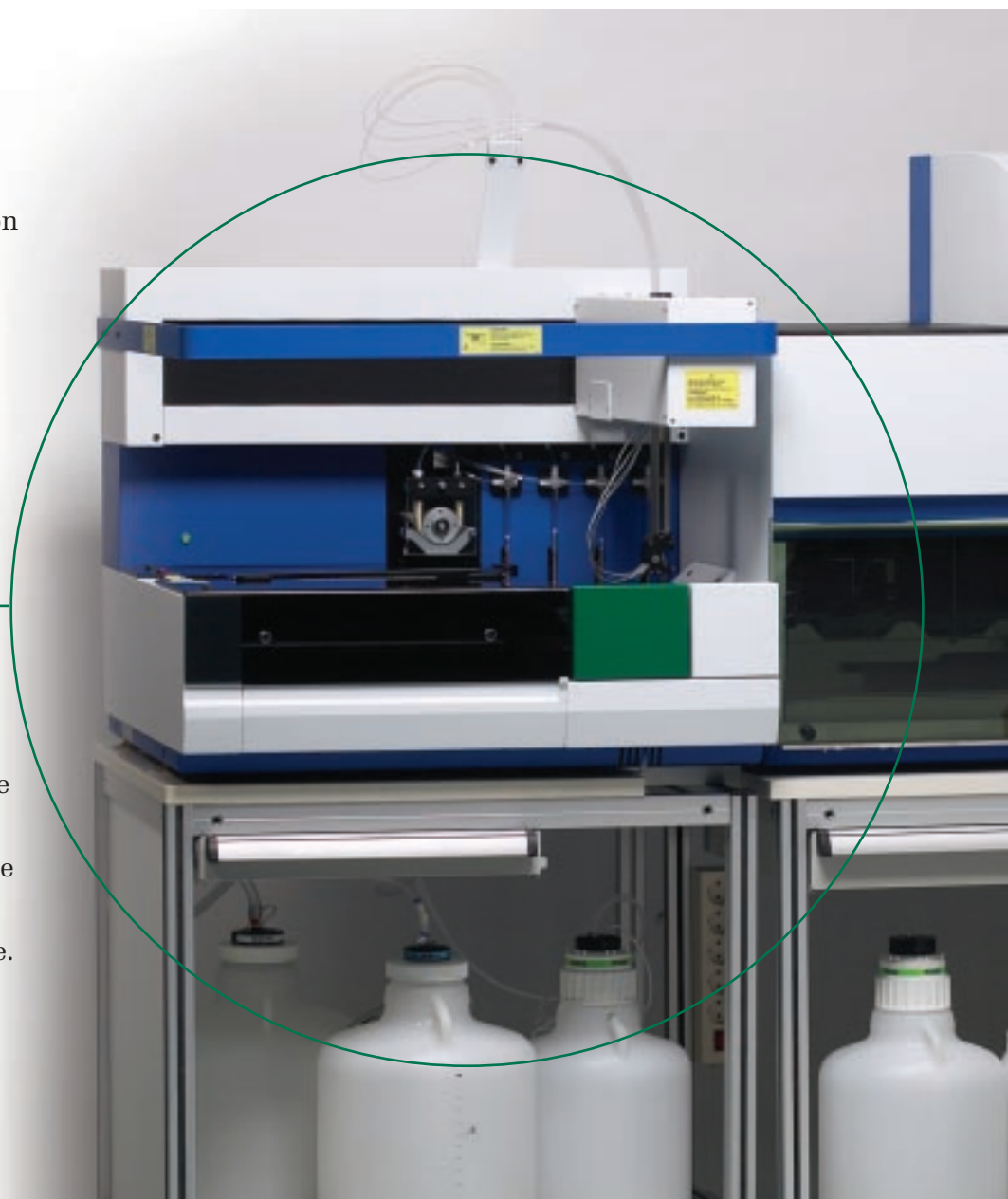
  
**PerkinElmer**<sup>™</sup>  
life sciences.

# A complete

of reasons

DELFLIA® products for population screening, clinical diagnostics and research are based on time-resolved fluorometry. In this, the unique fluorescence properties of lanthanide metals are utilized to form a measuring technology with many superior features.

Serving hospital, commercial and screening laboratories of all sizes and descriptions, our complete systems translate these features into solid user benefits. Wallac DELFLIA® systems include all necessary instruments, reagents and computer software.



# te set

for choosing DELFIA®



**DELFIA® systems from PerkinElmer Life Sciences are based on:**

- Very high sensitivity
- Wide dynamic range
- No radioactive waste
- Stable tracers
- Complete, optimized instrumentation packages
- MultiCalc®, data management software
- Easy labelling procedure
- Mild coupling conditions to proteins
- Use of multiple labels
- Fully automatic performance of assays if desired

# A complete of assay type

DELFI<sup>®</sup>A technology is both easy to use and easy to apply. The product range includes sandwich-type assays as well as competitive assays for routine clinical analytes. There is also a selection of research reagents, which allow users to build their own assays.

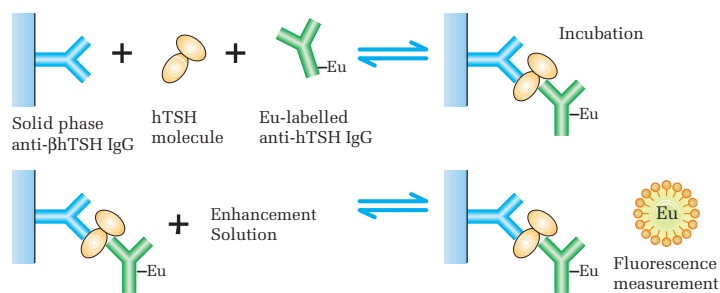
Most DELFIA assays involve use of europium chelate labels. These are characterized by a large Stokes shift, and a far longer decay time than conventional fluorophores. Measurement can thus be made at a wavelength and at a time where non-specific background fluorescence is minimal. DELFIA sandwich-type assays thus allow extremely high sensitivity and wide range of measurement.

In a typical sandwich-type DELFIA assay, for example measuring hTSH, samples are pipetted into antibody coated microtitration plates. Also pipetted is a reagent containing a second anti-hTSH antibody with a europium

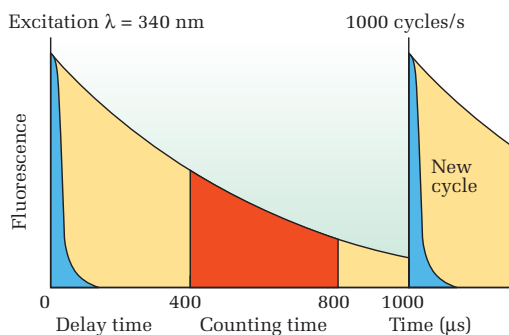
chelate label. After a short room temperature incubation on a shaker, a sandwich forms with hTSH molecules trapped and marked with the europium label.

Separation of the unbound tracer is performed as a simple wash stage. An enhancement solution is then added to each well. This dissociates the europium and forms a new, highly fluorescent chelate which is measured using the VICTOR<sup>2</sup><sub>™</sub>D Fluorometer. Fluorescence from this is proportional to the presence of the hTSH in the sample.

*DELFIA hTSH, an example of a DELFIA non-competitive sandwich type assay.*

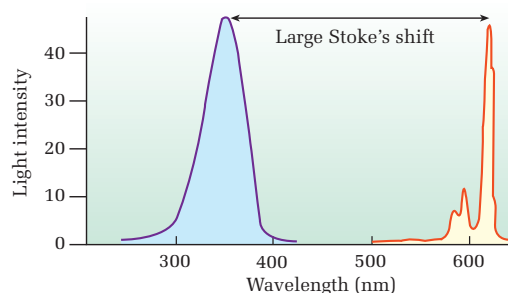


## Signal Resolution by Time



Europium chelates' fluorescence lasts 200,000 times longer than fluorescence from a conventional fluorophore. Time-resolved measurement starts only after non-specific background has died away.

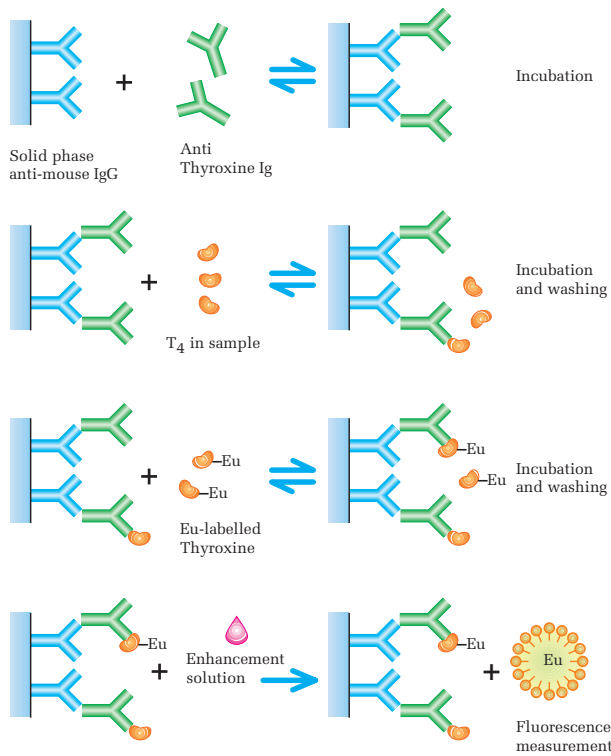
## Signal Resolution by Wavelength



Europium chelates have far wider Stoke's shift than commonly used conventional fluorophores. This means that the wavelength of the emitted light is as much as 200-300 nm longer than that of the excitation light used.

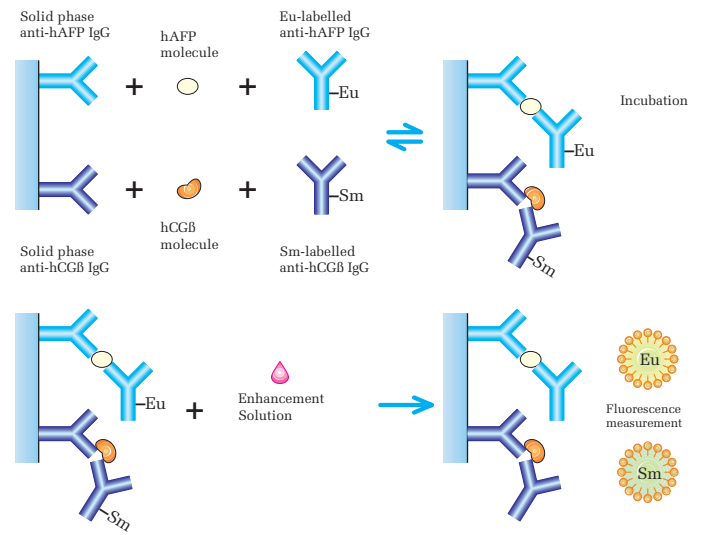
# DELIA range

types – and multilabelling too



DELFIA T<sub>4</sub>, an example of a DELFIA competitive assay.

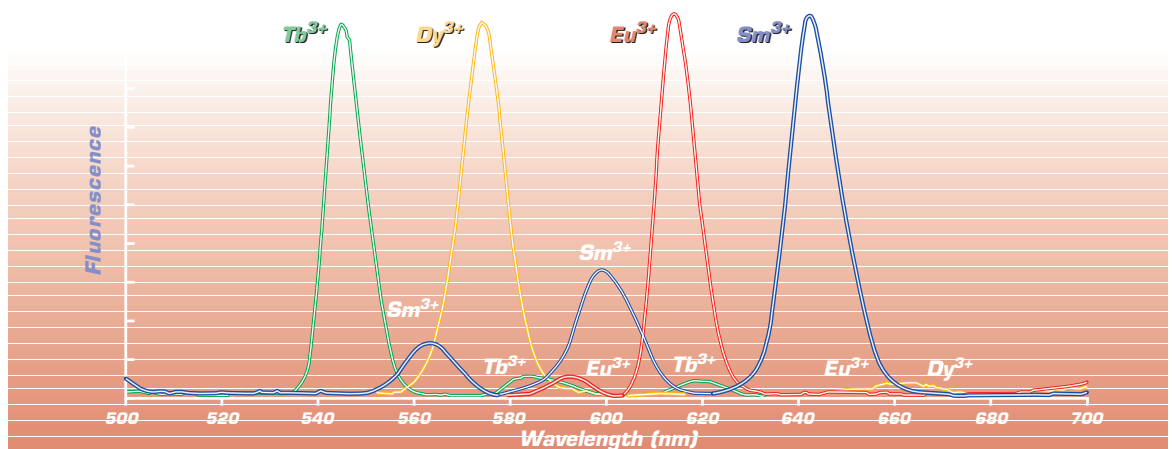
A special characteristic of the DELFIA technology is the facility to develop multianalyte assays involving up to four different lanthanide labels. Samarium, terbium and dysprosium, like europium, all of these form chelates with excellent fluorescence properties and clearly distinguishable emission windows.



DELFIA hAFP/Free hCG, employs two different lanthanide labels. Europium is used to label hAFP and samarium to label hCG.

## Four Different Labels

Narrow emission peaks and clear differences in wavelengths for four different lanthanides makes for cost-saving, convenient multi-label assays.



# Complete



For all types of investigations, the unique DELFIA system gives an unbeatable combination of advantages. The many benefits are appreciated by clinicians, by patients and by laboratory staff of many of the world's foremost laboratories.

Although PerkinElmer's product portfolio varies from country to country, the following are some examples of the diagnostic areas we service and the analytes for which DELFIA kits may be available. Please contact your local representative for more precise information on products available in your country.

## **Reproductive dysfunction**

The DELFIA range includes kits for all of the important steroid hormones as well as for the commonly measured glycoprotein hormones. Due to their high sensitivity and specificity, the kits are useful in investigations of patients from pre-puberty to post-menopause.

- Estradiol • Progesterone
- Testosterone\* • SHBG • hCG
- hLH Spec • hFSH • Prolactin
- hGH • Cortisol\*



# panels

## Thyroid function

For reliable diagnosis of thyroid function, kits for all analytes of importance are supplied. First line assays give excellent discrimination between hypothyroidism, normal thyroid function and thyrotoxicosis. There is a sensitive third generation TSH Ultra kit. To support changing testing strategies we also supply kits for autoantibodies.

- hTSH Ultra • hTSH • FT4 • T4
- FT3\* • T3 • TBG\*
- TPOAb\* • hTGAb\*

## Anemia

The advantages of the DELFIA method are applied in anemia investigations with a range of reliable kits.

- B<sub>12</sub>\* • Ferritin\* • Folate\*

## Diabetes

AutoDELFI<sup>®</sup>A kits for insulin and C-peptide provide the excellent sensitivity and precision typical for time-resolved fluorescence IFMA assays.

- Insulin • C-peptide

## Tumour markers

The DELFIA range of reliable tumour marker kits includes PSA F/T, which measures both free and total forms of prostatic specific antigen (PSA). The kit is thus able to provide more information than conventional total PSA tests.

- hAFP\* • CEA\* • PSA F/T\*
- PSA EQM\* • NSE\* • hTg\*
- $\beta_2$ -microglobulin\*

## Maternal health

The DELFIA system includes a full range of products to support maternal and fetal health. Flexible software solutions based on MultiCalc<sup>®</sup> and LifeCycle<sup>™</sup> packages complement a wide selection of kits and analyzers.

- hAFP • hCG\* • Estriol • AFP/free hCG $\beta$  Dual\*
- Free hCG $\beta$ \* • PAPP-A\*



## Neonatal screening

The DELFIA system is the leading system for screening of newborns for hypothyroidism, congenital adrenal hyperplasia and cystic fibrosis worldwide. Kits available are sensitive, reliable and easy to use. For short hands-on times, only one incubation is necessary. The DELFIA range is complemented by a series of prompt fluorescence kits for PKU, galactosemia, MSUD and G6PD deficiency.

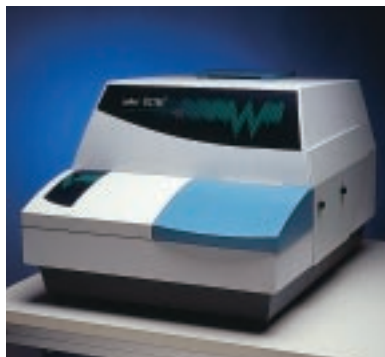
- Neonatal hTSH • Neonatal T4 • Neonatal 17-OHP
- Neonatal IRT

*\* Products not available in USA.*

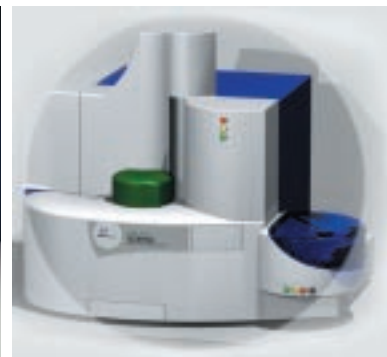
# A complete set of optimized products



1235 AutoDELFIATM automatic immunoassay system.



VICTORTM D multilabel counter.



DELFIATM Xpress – coming soon.

In larger diagnostics laboratories most DELFIA<sup>®</sup> assays are performed using the AutoDELFIATM automatic immunoassay system.

Using the VICTORTM D Fluorometer, semi-automatic DELFIA assays are measured in less than three minutes for up to 96 samples.

Available shortly, DELFIA<sup>®</sup> Xpress is a random access platform intended for maternal screening.

1235-514	AutoDELFIATM automatic immunoassay system
1420-020	VICTORTM D Fluorometer
1296-026	DELFIATM PlateWash
1296-003/004	DELFIATM PlateShake
1296-041	DELFIATM Plate Dispense
1296-043	DELFIATM Dispense Unit
1296-071	Wallac DBS Puncher
1296-081	Wallac MultiPuncher
1296-061	DELFIATM DiskRemove
1296-062	Vacuum Unit
1224-310	MultiCalc <sup>®</sup> Advanced

All products may not be available in certain countries.  
For information on availability please contact your local representative.



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