

THIS IS WHERE
RELIABILITY AND
INSPIRATION
COME TOGETHER



WHICH ASSAY TECHNOLOGY IS RIGHT FOR YOU?

IMMUNOASSAYS

PerkinElmer offers a range of immunoassay technologies that enable selection of the optimal immunoassay platform for your requirements. From sample compatibility to sample volume, throughput, detectable range, signal window, signal stability, reproducibility, automation compatibility, and desired speed of results, PerkinElmer offers immunoassay technology platforms, pre-configured kits, and customizable reagents for superior results.

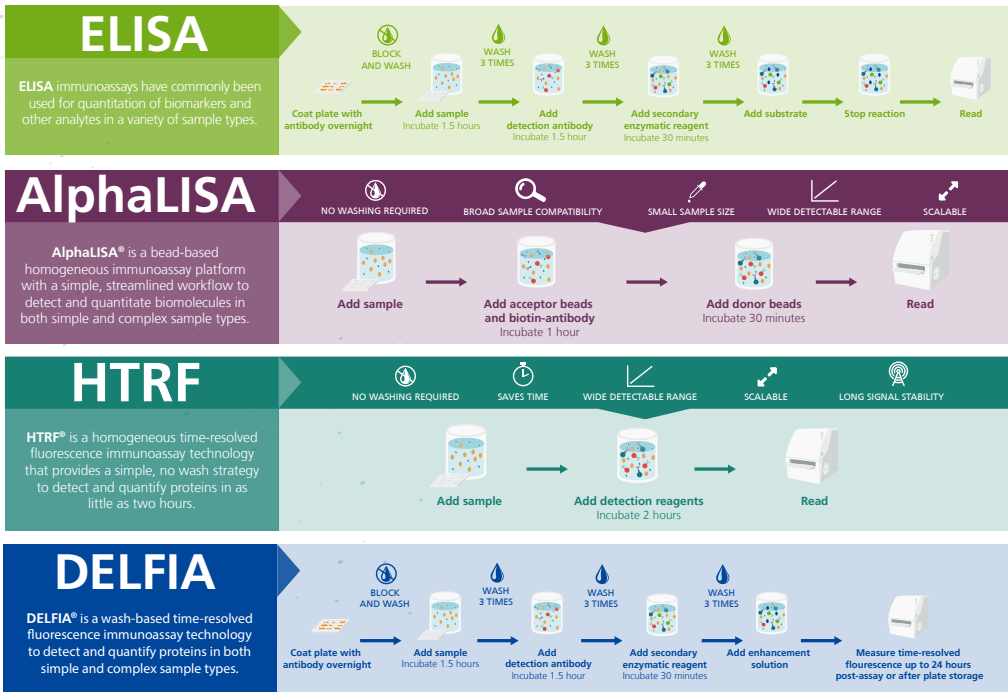
Immunoassay Comparison

	ELISA	DELFIATR	HTRF®	AlphaLISA®
Plate Format	96-wells	96- to 384-wells	96- to 1536-wells	96- to 1536-wells
Miniaturization	Limited	Limited	Yes	Yes
Time to Results	4-24 hr	4-6 hr	1-2 hr	1-2 hr
Wash Steps	Yes	Yes	No	No
Dynamic Range	2 Log	5 Log	4 Log	5 Log
Sensitivity	10 pg/mL	10 pg/mL	10 pg/mL	1 pg/mL
Avidity	No	No	Only with streptavidin	Yes
Signal Stability	Up to 1 hr	Days - Years	24 hr - Days	Up to 24 hr
Multiplexing	No	Yes (up to 3 targets)	No	Yes (up to 3 targets)
Reader Requirements	Chromogenic and Chemiluminescence Compatible	TRF Complatable	TRF Complatable	Alpha Compatible
Chemistry	N/A	Fluorophore Chelate	Fluorophore Cryptate	Fluorophore Embedded Beads
Analyte Size	No Limitation	No Limitation	Subject to Förster Radius (9 nm)	Subject to oxygen singlet diffusion (200 nm)

Benefits of PerkinElmer Immunoassay Platforms:

- Wide dynamic range
- Increased sensitivity
- Reduced background
- Large stokes shift
- Extended signal stability
- Faster time to results

Workflow Comparison



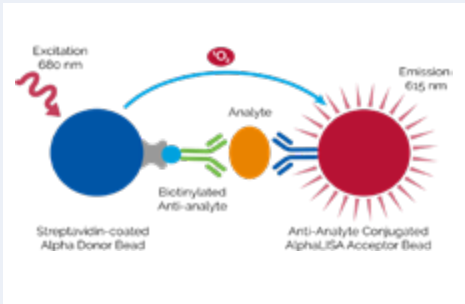
HTRF® is a registered trademark of Cisbio Bioassays.

Application Support Knowledgebase

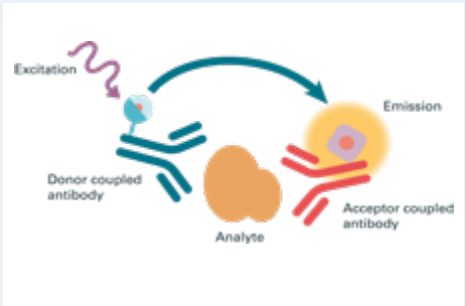
We've got you covered – 24 hours a day, seven days a week. Our assay support knowledgebase (ASK) contains detailed information on assay development, protocols, tips, FAQs, citations, troubleshooting and more. Log onto perkinelmer.com/ASK and find answers easily.

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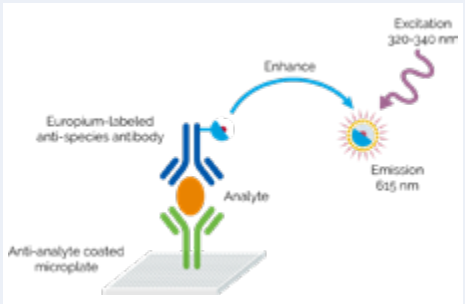
ALPHALISA® is a bead-based homogeneous immunoassay platform with a simple, streamlined workflow to detect and quantitate biomolecules in both simple and complex sample types.



HTRF® is a homogeneous time-resolved fluorescence immunoassay technology that provides a simple, no wash strategy to detect and quantify proteins in as little as two hours.



DELFI® is a wash-based time-resolved fluorescence immunoassay technology to detect and quantify proteins in both simple and complex sample types.



LUMINESCENCE ASSAYS

Reporter gene, cytotoxicity, and cell proliferation assays are important tools in drug discovery. Luminescence assays allow for the study of transcriptional gene expression, virus life cycles, and cell viability.

Luminescence detection platforms provide simple, reproducible results over a wide dynamic range. Our luciferase-based luminescence assays include [reporter gene](#) and [ATP-monitoring assays](#) and [kinase activity assays](#).

Benefits include:

- Ultrasensitivity
- Wider dynamic range
- Superior S/B ratios
- No separation steps
- Faster time to results
- Easy setup for high throughput
- Hassle-free storage

Overview of Luminescence Assays

Reporter Gene Assays	Cytotoxicity & Cell Proliferation Assays	Kinase Activity Assay
britelite™ plus	ATPlite™	easylite-Kinase™
steadylite™ plus	ATPlite™ 1 step	
neolite™	ATPlite™ 3D	
sensilite™	ATPlite™ 3D 1 step	
twinlite™		

Reporter Gene Assays

	britelite plus <i>Intensively sensitive</i>	steadylite plus <i>Long-lived glow</i>	neolite <i>Bright and stable</i>	sensilite <i>Ultra sensitive</i>	twinlite <i>Dual luciferase assay</i>
Application	Firefly Luciferase Reporter Gene Assays				Firefly and Renilla Luciferase Reporter Gene Assays
Half-life	0.5 hours	4-5 hours	2.5 hours	Flash	Flash
Relative Sensitivity	High	Moderate	Moderate	Very High	Very High
Microplate Formats	96, 384, 1536 wells	96, 384, 1536 wells	96, 384, 1536 wells	96, 384 wells	96, 384 wells
Ideal For	Low transfection efficiencies, stem cell transfection, continuous processing	High-throughput screening, extended batch processing	Low transfection efficiencies, primary cell transfection, batch processing	Low transfection efficiency, stem cell transfection	Normalization for high quality data, screen two events in parallel

MULTIMODE MICROPLATE READERS FOR EVERY APPLICATION AND THROUGHPUT LEVEL



VICTOR® Nivo™
Multimode Plate Reader



EnSight® Multimode
Plate Reader



EnVision® Multimode
Plate Reader

Summary of Modalities¹

	VICTOR Nivo	EnSight	EnVision
UV-Vis Absorbance	Filter or spectrometer	Filter and quad monochromators	Filter and/or quad monochromators
Fluorescence Intensity	Filter	Quad monochromator	Filter and/or quad monochromators
Luminescence	• ²		• ²
Ultrasensitive Luminescence		•	•
TRF and TR-FRET	Lamp based ³	Lamp based	Lamp or laser based ³
Fluorescence Polarization	•		•
Alpha (Laser-Based)	Alpha Standard	Alpha HTS	Alpha Standard or Alpha HTS
AlphaPlex (Laser-Based)			Alpha Standard
Fast Image-based Cytometry		•	
Dual PMT Detector			•

1 - All instruments are configurable.
2 - Capable of BRET/BRET2 assays.
3 - HTRF® Certified.

OneSource Laboratory Services

From instrument repair, asset analytics, and laboratory IT services to scientific consulting, compliance services, and lab relocation support, our dedicated OneSource Laboratory Services team helps keep scientists like you focused on what’s important – the science. Learn how our customized solutions can help you: perkinelmer.com/onesource.

MULTIMODE MICROPLATE READERS FOR EVERY APPLICATION AND THROUGHPUT LEVEL

VICTOR Nivo Multimode Plate Reader

- Compact and lightweight
- High performance for routine applications, including biochemical and cell-based assays
- All major detection modes including laser-based Alpha Technology
- Time-resolved fluorescence certified for use with HTRF® technology
- Intuitive, browser-based software allows for remote operation
- Optional dispenser and gas control

Best for research labs with multiple users and relatively low throughput.



EnSight Multimode Plate Reader

- Fast well imaging lets you combine technologies for an orthogonal approach
- Available HTS Alpha module is uniquely designed to provide higher sensitivity, faster read times, and reduced cross talk between wells
- Ideal for assays such as cell health/toxicity, proliferation, migration, transfection efficiency, spheroid growth, and viral infection studies

Best for research and assay development labs with intermediate throughput requirements, or when imaging is required in addition to a plate reader.



EnVision Multimode Plate Reader

- Proven performance when the highest levels of speed and sensitivity are required
- Our fastest benchtop plate reader – uses two detectors to enable simultaneous, dual-wavelength reading
- Well established for laser-based Alpha and TRF technologies, as well as ultrasensitive luminescence
- Time-resolved fluorescence certified for use with HTRF® technology
- Software that can facilitate 21 CFR Part 11 compliance for integration into regulated environments (GxP).

Best for screening and assay development labs needing high throughput and high performance.



ONPOINT CUSTOM SOLUTIONS

Are you working on a novel target? Need to develop an assay? We're here to help. Choose between custom labeling or custom assay development. Let our experts extend your lab's capabilities by labeling your sample so you can develop your own assay – Alpha, HTRF, LANCE *Ultra* and DELFIA labeling available.

Let us develop an assay to your specifications.

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[CLICK HERE TO LEARN MORE ABOUT HTRF CUSTOM LABELING](#)

[CLICK HERE TO LEARN MORE ABOUT HTRF CUSTOM ASSAY DEVELOPMENT](#)



Radiometric Assays

Radiometric assays continue to be utilized as a sensitive method to analyze and quantitate small molecules, peptides, and proteins in biological samples. We offer a full range of radiochemicals and radiometric detectors to meet your radiometric assay needs. View our entire offering of radiometric detection products here. www.perkinelmer.com/category/radiometric-detection or learn about our custom radiometric solutions here. www.perkinelmer.com/category/custom-products-research-services



Microplates

Drawing on many years of experience and in-depth knowledge, we offer microplates for almost every application and throughput. Our microplates are carefully constructed to handle any unique challenges your application may bring. Ask about our ProxiPlate™ or AlphaPlate microplates, or view our entire selection here: www.perkinelmer.com/microplates

