

REAL-TIME IMMUNOASSAYS

Rapid | Precise | Simple



ELIONOVA



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Precise & Rapid diagnostics for Research Use, IVD & Beyond

About Us

ElioDX™ wash-free technology delivers **real-time, laboratory-quality, immunoassays** in just **10 minutes** through a simple, **one-step**, disposable system.

Designed for unmatched precision, speed, and versatility, ElioDX™ supports a wide array of applications across Research & Development (R&D), In-vitro Diagnostics (IVD), **Food Safety, Agriculture, Drug Development** and **Quality Control**.



Why Choose Us?



SPEED

10 min to result

10x faster than the industry benchmark



HIGH PRECISION and ACCURACY

Quantitative immunoassays.

Real-time results provides further information on reaction.



SIMPLICITY

Single pipetting step, **no washing or incubation**.

Cuvettes contain all **reagents in dried form**



FLEXIBILITY

Offers users the possibility to **develop own assays**.

Bring **existing** assays to ElioDX platform.



DIGITAL RECORDS

Digital platform for assay setup, evaluation and data storage.

Results accessible from any computer and smart phone.

OUR PRODUCTS

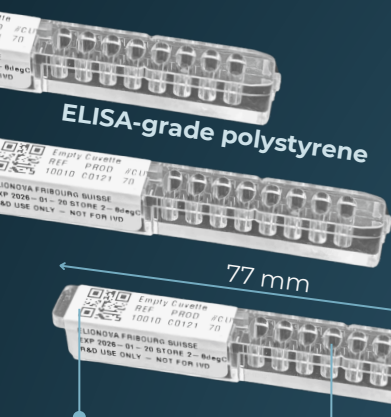
ElioDX™ INSTRUMENT

Compact & Portable
Laser Evanescent technology
Photon counting
Highly precise mechanics



ElioDX™ DISPOSABLES

ElioDX™ PRE-MADE ASSAYS



Human IgG I-FABP
FSH IL-6
PCT IL-27
CRP CD-64
SAA MPO
+ 50 applications a year

quantitative
10 min
single step

ElioDX™ Do-It-Yourself (DIY) KIT



Our DIY kit, **NeutrAvidin kit** and **Protein G kit** provide a fully customisable workflow—letting users choose their own workflow to suit their specific application.

quantitative
flexible
flexible

Unique QR code for cloud registration, single-use tracking and effortless data management

8 wells, for multi biomarkers or multi samples at the same time

OUR SERVICE

Custom Assays

Elionova offers custom assay development tailored to your research needs. From initial request to validated delivery, our team ensures each assay is optimized for accuracy, speed, and seamless integration with your workflow.



Conjugation

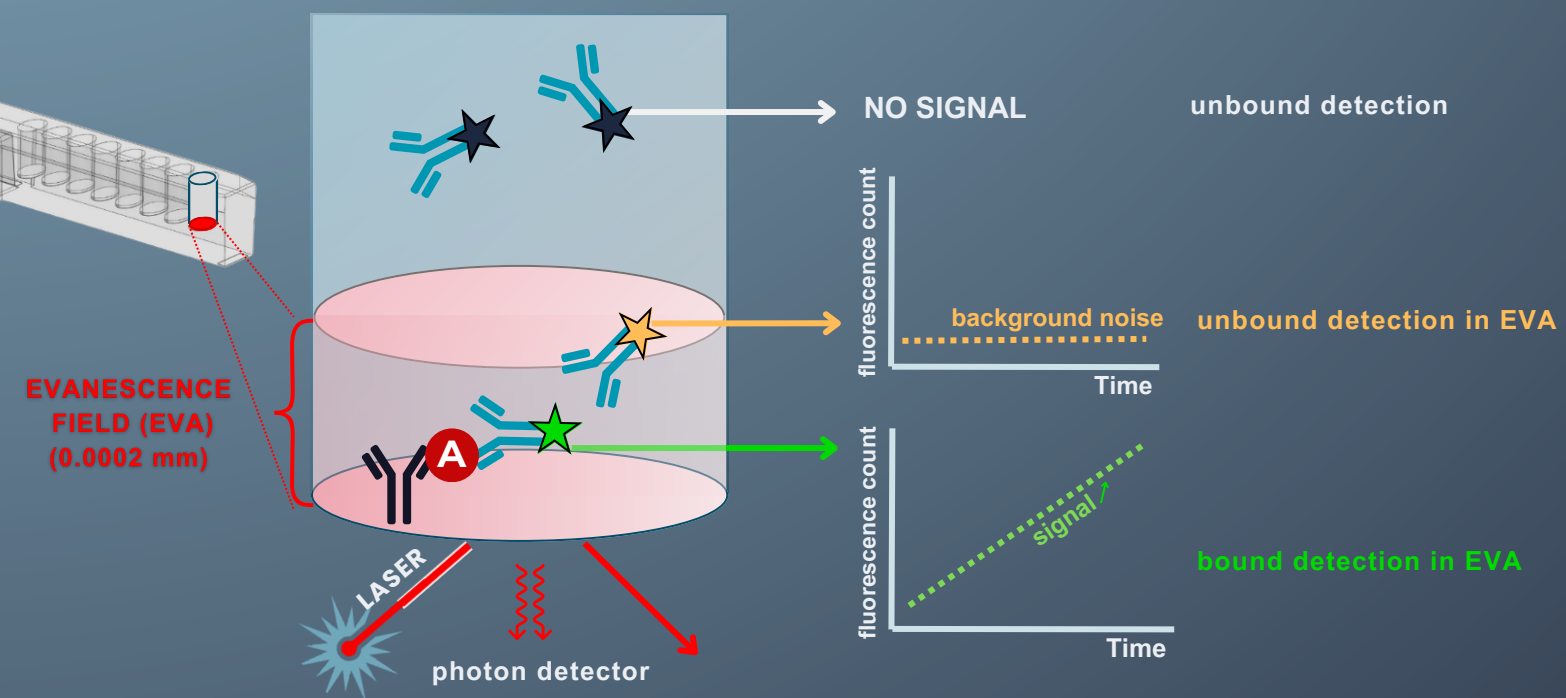
Elionova offers a reliable protein conjugation service to Allophycocyanin (APC), Cy5, or Alexa Fluor 647. From planning to purification and quality control, we ensure high-performance conjugates tailored to your application.



OUR TECHNOLOGY

A clever combination of:

Immunoassay methods
Laser Evanescence Technology
Photon Counting
Highly Precise Mechanics



KEY POINTS:

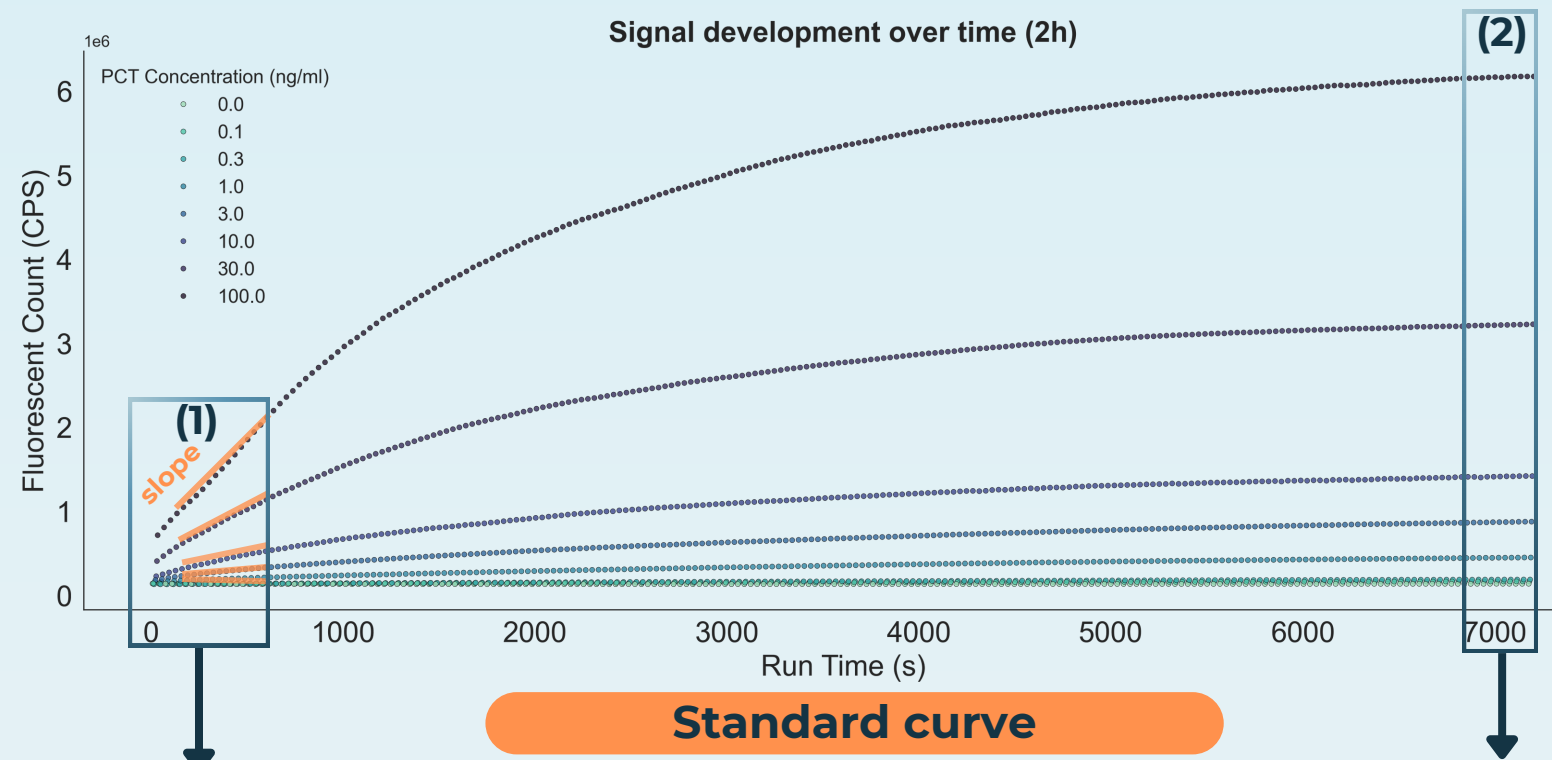
- **Evanescent laser field** excites molecules only at the bottom of the well, where the immune reaction takes place
- **Specific signal** increase over time exceeds the background signal without analyte
- **No washing** steps required

EVALUATION APPROACHES

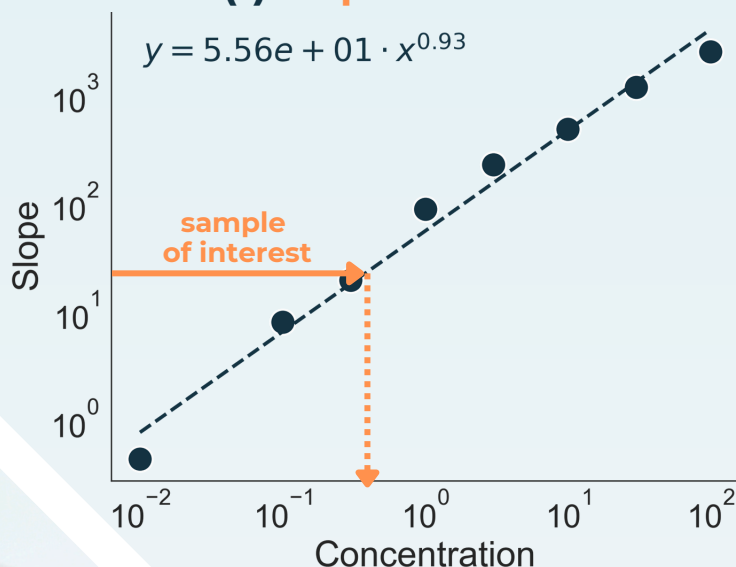
Dynamics (1) vs steady state (2)

ElioDX™ is a versatile and flexible system that enables:

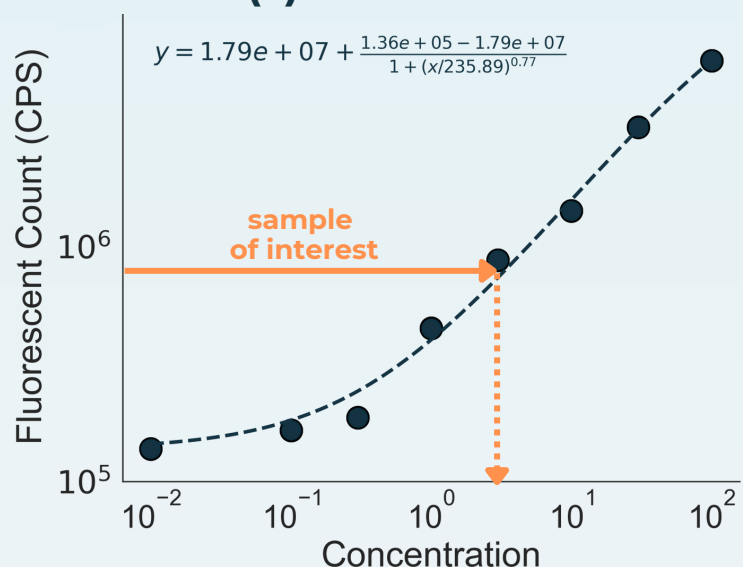
- (1) **dynamic** monitoring fluorescent signal overtime (10 min) and plot **slope vs concentration** for a kinetic standard curve;
- (2) **steady state** capturing endpoint signal in just 2 minutes and plot **fluorescent count vs. concentration** for traditional standard curve - perfect for high-throughput or simplified protocols.



(1) **slope vs conc.**



(2) **count vs conc.**

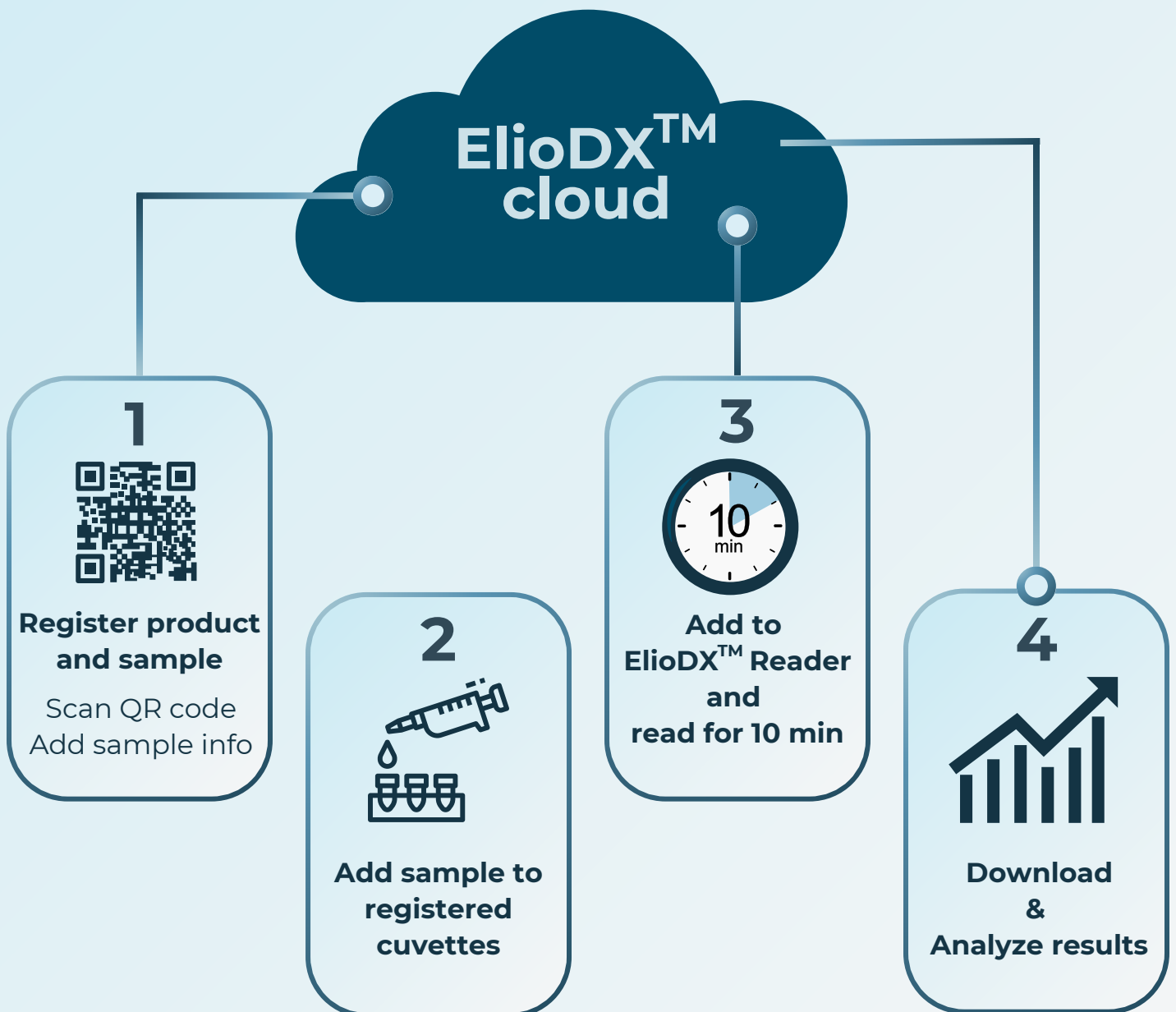


The measured **slope** (dynamic) or **count** (steady state) of the sample of interest is referenced against the standard curve to calculate the analyte concentration.

OUR WORKFLOW

How to operate a pre-made **ELIODX™ IMMUNOASSAY**

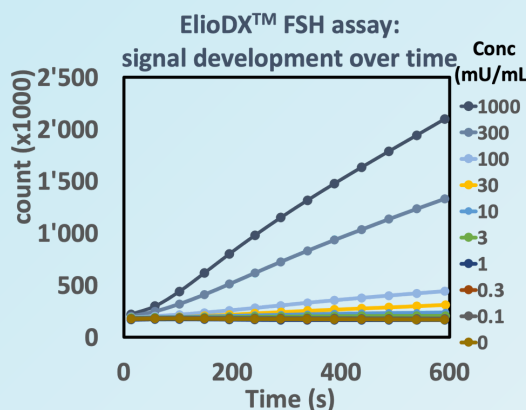
Each ElioDX™ cuvette includes a **unique QR code** for easy registration and metadata entry, such as sample IDs and sample matrix details. Samples are pipetted directly into pre-loaded cuvettes—no incubation or washing required. The ElioDX™ reader then performs **10 min real-time**, quantitative fluorescence measurements. Results are automatically uploaded to **the ElioDX™ cloud**, where they're processed and available in Excel or CSV format.



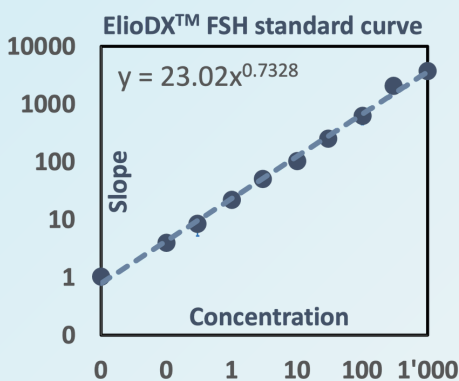
ASSAY PERFORMANCE

The ElioDX™ system demonstrates analytical sensitivity comparable to, or exceeding other immunoassays, such as ELISA and chemiluminescence, with high efficiency from its no-wash protocol.

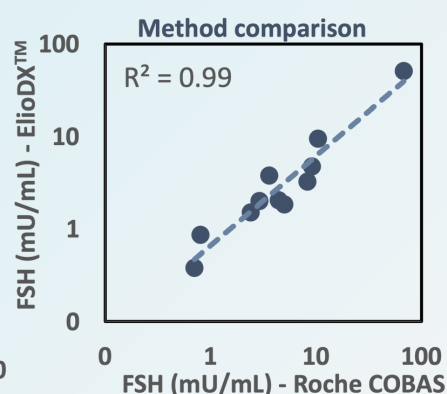
ElioDX™ Human Follicle Stimulating Hormone (FSH)



Development of fluorescent signal over time
(0-10 min) for different concentrations of FSH

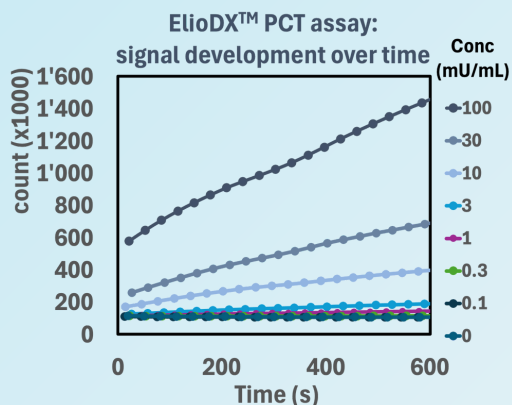


Analytical limit of detection is 0.3 U/L
(clinical FSH cut-off is 1 U/L)

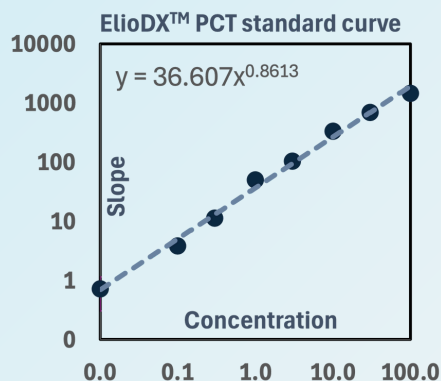


Elionova FSH results correlate well ($R^2 = 0.99$) to the values obtained using **Roche COBAS** analyser.

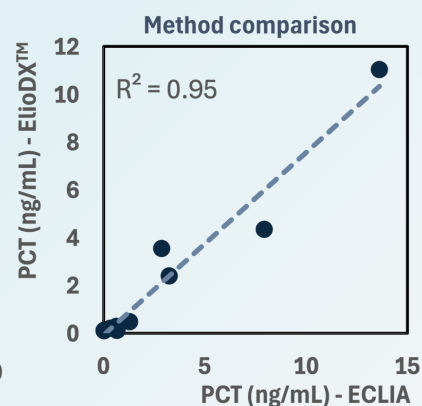
ElioDX™ Human Procalcitonin (PCT)



Development of fluorescent signal over time
(0-10 min) for different concentrations of PCT



Analytical limit of detection is 0.1 ng/mL
(clinical PCT cut-off is 0.1 ng/ml)



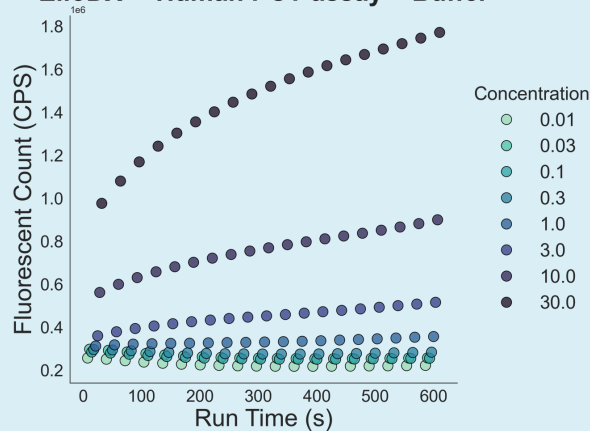
Elionova PCT results correlate well ($R^2 = 0.95$) to the values obtained using ECLIA analyser.

ASSAY MATRICES

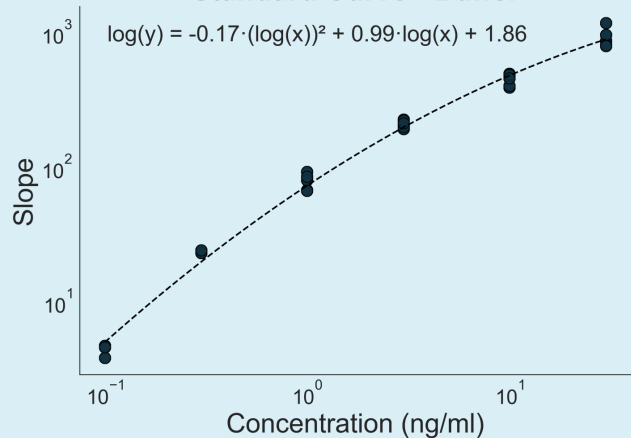
The ElioDX™ system is compatible with a wide range of biological sample types, including blood, saliva, urine, cerebrospinal fluid, and cell culture supernatants.

The **example** below shows different sample matrices—**buffer, heparin plasma, and serum**—tested in our **ElioDX™ Human PCT assay**, with the signal development plot on the left and the corresponding standard curve on the right for each matrix.

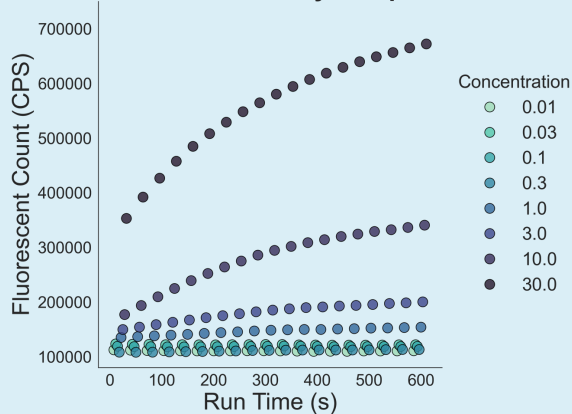
ElioDX™ Human PCT assay – Buffer



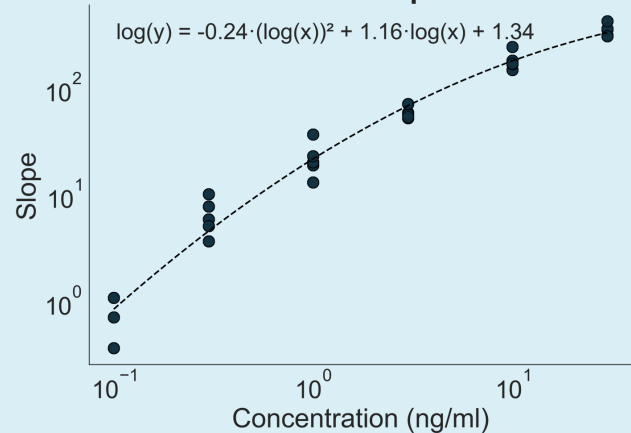
Standard Curve - Buffer



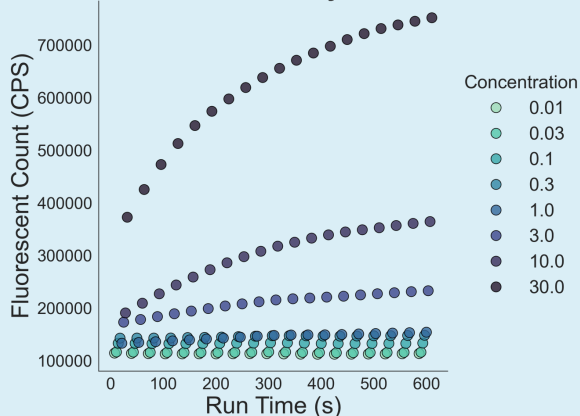
ElioDX™ Human PCT assay – Heparin Plasma



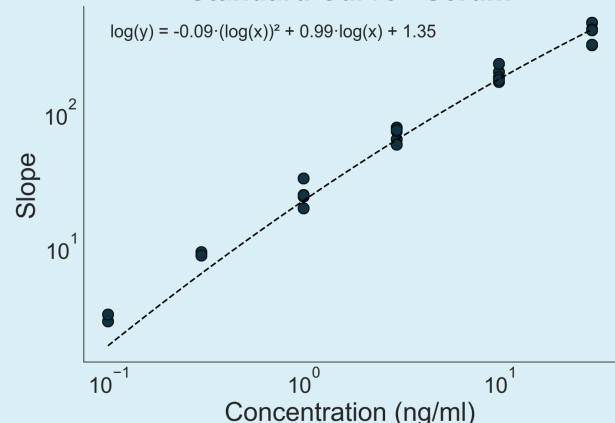
Standard Curve - Heparin Plasma



ElioDX™ Human PCT assay – Human Serum



Standard Curve - Serum



OUR APPLICATIONS

The ElioDX™ system detects a broad range of analytes—including **antibodies, proteins, nucleotides, and drugs**—using flexible assay formats like **direct, indirect, sandwich, and competitive**, similar to ELISA.

Analytes



Antibody



Protein



Nucleotide



Drug

Assay formats



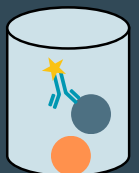
Direct



Indirect



Sandwich



Competitive

Protein interaction characterization

Our technology provides functionality comparable to **surface plasmon resonance (SPR)** analysis, but with exceptionally **simple handling and low cost**.



Affinity

How strong is the interaction?



Kinetics

How fast does binding occur?



Concentration

How much of the molecule is present?



Specificity

How selective is the interaction?

Application fields



RESEARCH

Cell biology
Infections
Immunology
Immuno-oncology
Neurobiology
...



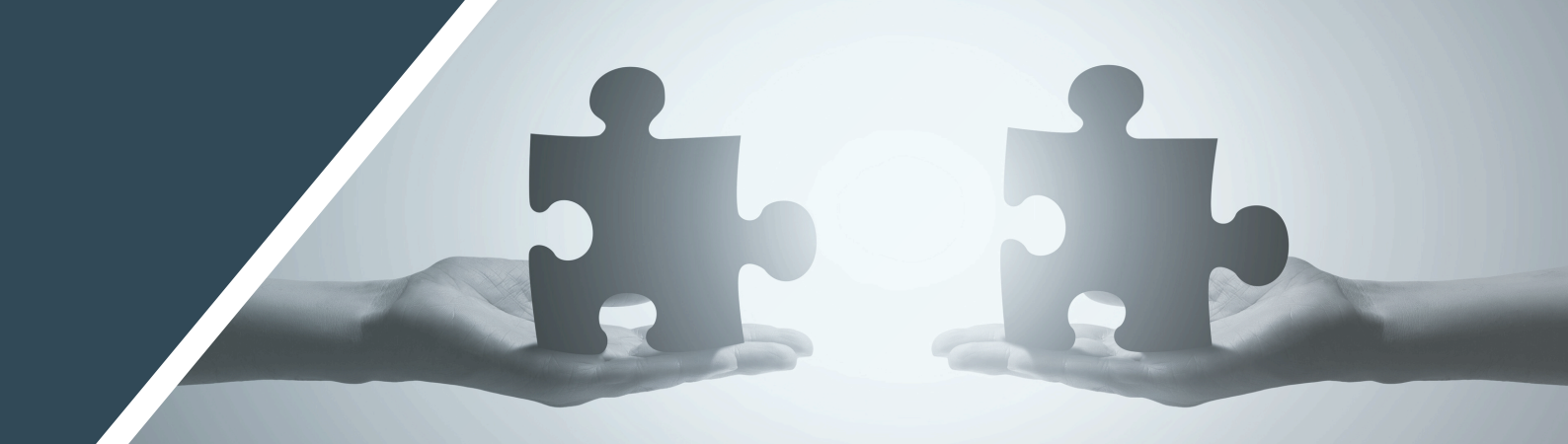
DIAGNOSTICS

Veterinary IVD
Human IVD
Food safety
Agriculture
...



PHARMA

Drug discovery
Development
Quality control
...



TESTIMONIALS



Dr. Anthony Croxatto,

Director of the Department
of ADMED Medical Microbiology,
Swiss Reference Centre
for Tick-borne diseases.

"Elionova's real time immunoassay technology has dramatically improved our immunoassays for detection of tick-borne diseases."



Peter Spies,

Research Scientist
University of Applied Sciences and
Arts Northwestern Switzerland

"We anticipate a massive gain in time to result, material as well as hands-on time making the ElioDX™ technology much more economic than our traditional methods like ELISA."