molecular probes® by life technologies™

Immunoassays in a flash

DynaLight™ Substrate with RapidGlow™ Enhancer

- **Fast**—results in minutes with RapidGlow™ Enhancer, or in seconds when combined with DynaLight™ Trigger Solution
- **Flexible**—read signal from seconds to hours
- **Dynamic**—up to 5-log detection range
- **Optimized**—compatible with microplates or magnetic beads for optimal performance
- **Sensitive**—unmatched low-end detection

Chemiluminescent technology offers maximal sensitivity, high-intensity signal, low background, wide dynamic range, rapid signal production, and assay format compatibility—making it one of the most widely utilized detection methods for immunoassays. The alkaline phosphatase–based DynaLight™ Substrate and RapidGlow™ Enhancer represent a new generation of immunoassay detection reagents. This formulation readily delivers superior sensitivity and kinetic performance, with results generated in as little as seconds to minutes.

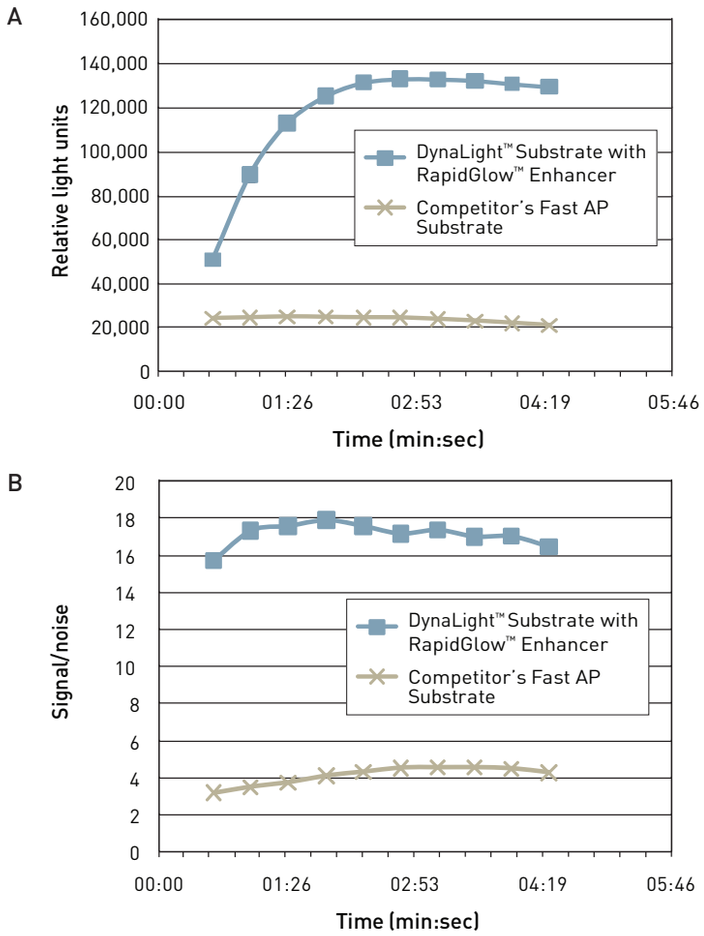


Figure 1. (A) DynaLight™ Substrate light emission kinetics, and (B) signal-to-noise kinetics comparison. A human IL-6 sandwich immunoassay was performed with either DynaLight™ Substrate with RapidGlow™ Enhancer or a competitor's Fast Alkaline Phosphatase (AP) Substrate. Kinetics from 24 pg/mL IL-6 are shown.

Fast signal generation

The DynaLight™ Substrate with RapidGlow™ Enhancer typically generates peak light output typically in 2–3 minutes (Figure 1), or in seconds when using the optional DynaLight™ Trigger Solution (results not shown). The emission signal lasts several hours (results not shown), offering maximal flexibility and convenience.

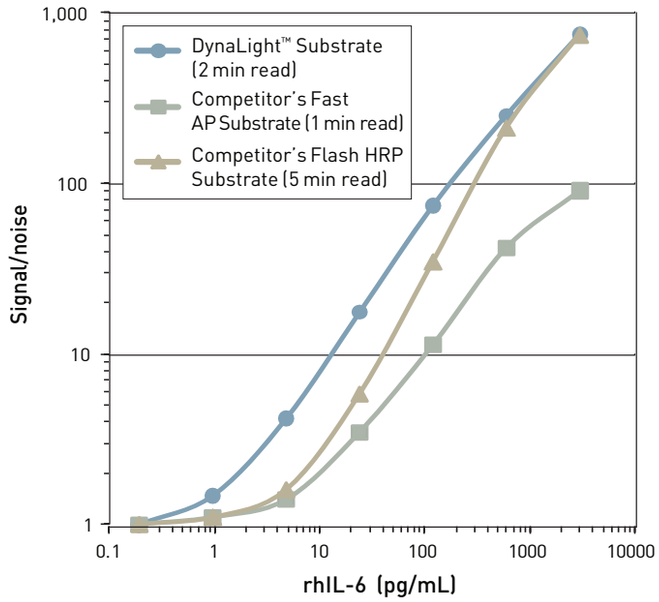
life technologies™

Robust results with multiple formats

The DynaLight™ Substrate provides the benefit of alkaline phosphatase enzymatic amplification and has been optimized for immunoassay detection in both microplate and Dynabeads® magnetic bead formats. In either format, you can expect low background signal paired with high-intensity light output—key performance parameters for low-end assay sensitivity and broad dynamic range (Figure 2, Figure 3).

Your success becomes ours

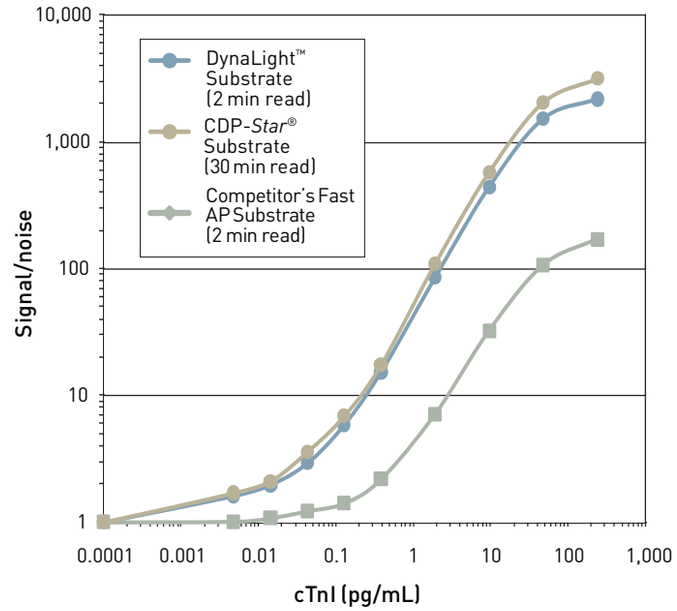
Life Technologies is pleased to become your partner for customized development of DynaLight™ Substrate and RapidGlow™ Enhancer solutions, together with Dynabeads® magnetic beads or microplates—enabling superior performance for your immunoassay.



Detection system	MDD of IL-6 concentration*
DynaLight™ Substrate with RapidGlow™ Enhancer	120 fg/mL
Competitor's Fast AP Substrate	800 fg/mL
Competitor's Flash HRP Substrate	600 fg/mL

* Minimal detectable dose (MDD) of IL-6 as determined by adding 2 standard deviations to the mean RLU of 4 zero-standard replicates.

Figure 2. DynaLight™ microplate immunoassay performance comparison. A human IL-6 sandwich immunoassay was performed in a microplate using DynaLight™ Substrate with RapidGlow™ Enhancer, a competitor's Fast AP Substrate, or a competitor's Flash HRP Substrate. The DynaLight™ Substrate with RapidGlow™ Enhancer provides superior low-end detection and dynamic range.



Detection system	MDD of cTnI concentration*
DynaLight™ Substrate with RapidGlow™ Enhancer	0.63 pg/mL
CDP-*Star*® Substrate/ Emerald-II™ Enhancer	0.60 pg/mL
Competitor's Fast AP Substrate	60.0 pg/mL

* Minimal detectable dose (MDD) of cTnI as determined by adding 2 standard deviations to the mean RLU of 8 zero-standard replicates.

Figure 3. DynaLight™ bead-based immunoassay performance comparison. Cardiac troponin (cTnI) was quantitated with a sandwich immunoassay using Dynabeads® M-280 magnetic beads as the capture surface. The DynaLight™ Substrate with RapidGlow™ Enhancer provides superior low-end detection and dynamic range.

For Research Use Only. Not intended for any animal or human therapeutic or diagnostic use.

Printed in the USA. **CO23470 0711**

lifetechnologies.com

life technologies™