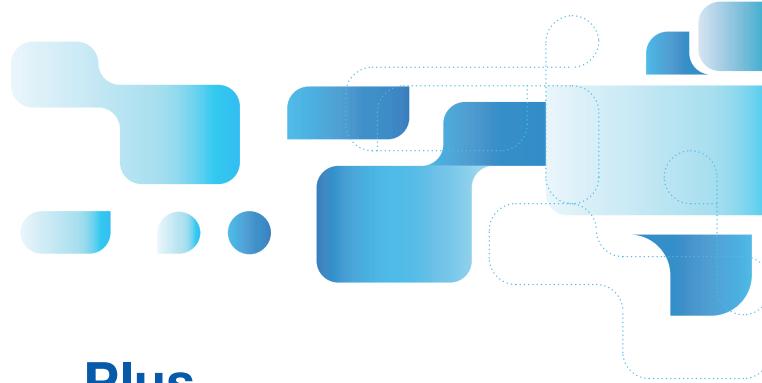




FILTER TECHNOLOGY



Plus LIGHTwave™

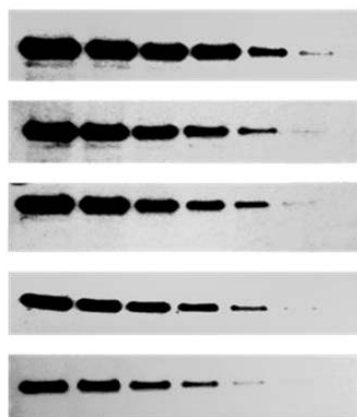
HIGH SENSITIVITY AND
LONG-LASTING SUBSTRATE

LightWave™ Plus is the best choice for mid-femtogram detection level. Extremely versatile, **LightWave™ Plus** enables the detection of the protein of interest when immunoblotting conditions are not yet optimized.

Its high sensitivity combined with a broad linear dynamic range allows an accurate quantification of both low and high abundance proteins in the same experiment. Furthermore, **LightWave™ Plus** extremely long signal duration results in superior reproducibility, ease of use, and less of a chance for creating artifacts.

Benchmarking data

LightWave™ Plus exhibits a mid-level performance for everyday experiments, offering a stable signal and a very good sensitivity. **LightWave™ Plus** can substitute, without changes in the protocol, the most common substrates, such as Amersham™ ECL Prime™ (GE Healthcare), Clarity™ (Biorad), Supersignal™ West Dura and West PICO PLUS (Thermo Scientific™). **LightWave™ Plus** provides an excellent performance in routine Western blotting applications, with higher signal intensity and sensitivity than several of its competitors, such as West PICO PLUS (Thermo Scientific™) and Clarity™ (Biorad) (Figure 1).



Plus
LIGHTwave™

SuperSignal™ West Dura -Thermo Scientific™

Amersham™ ECL Prime™ - GE Healthcare

SuperSignal™ West PICO PLUS – Thermo Scientific™

Clarity™ - BioRad

Figure1. Western blotting detection of HDAC-1 on HeLa cell lysate with **LightWave™ Plus** and other chemiluminescent substrates in the same sensitivity range.

Features

Sensitivity and Precision

LightWave™ Plus produces a strong signal in the presence of a very low background level, resulting in a high signal-to-noise ratio and high sensitivity, comparable to Amersham™ ECL Prime™ (GE Healthcare) and Supersignal™ West Dura (Thermo Scientific™) and significantly better than Clarity™ (Bio-Rad) and Supersignal™ West PICO PLUS (Thermo Scientific™) (Figure 2). The high sensitivity, combined with its wide linear range, allows an excellent quantitation of low and high abundance proteins on the same blot, with a single exposure. **LightWave™ Plus** maximizes reproducibility, thus increasing the significance of experimental results.

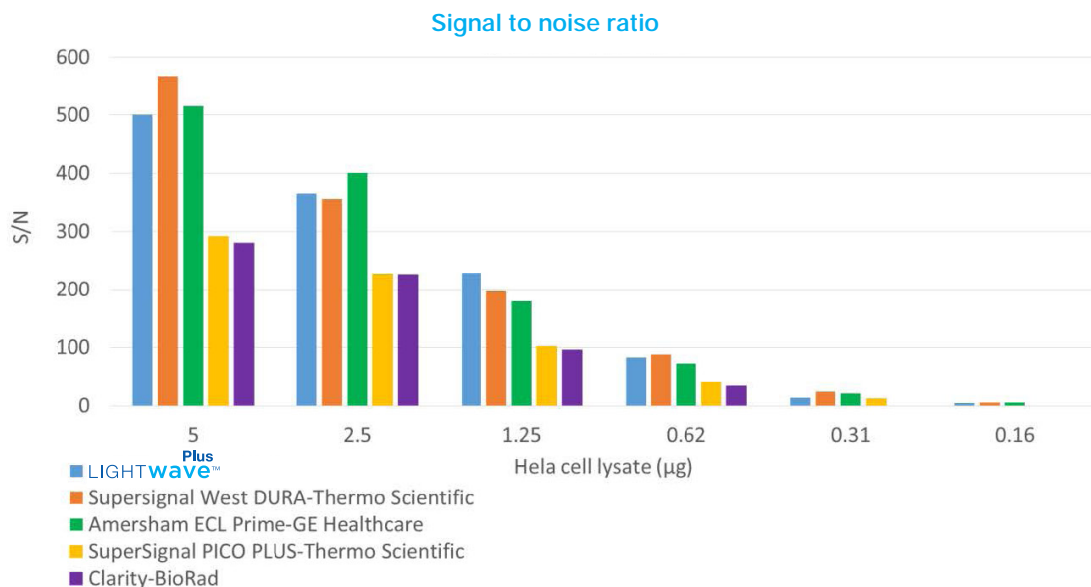
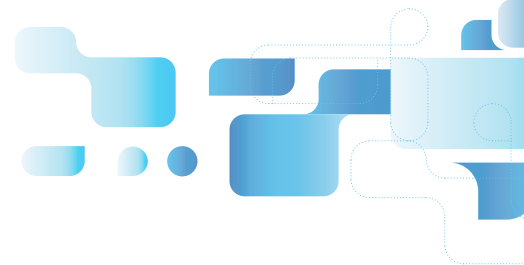


Figure 2. Signal-to-noise ratio (S/N) analysis of LightWave™ and its competitors.

Triplicate blots for each substrate containing 2-fold dilutions of HeLa whole cell lysate from 5 to 0.016 µg were incubated with primary antibody (Rabbit-anti Human HDAC-1) 1:5000 and secondary antibody (Goat anti Rabbit-HRP) 1: 75000 and were simultaneously imaged for 180 seconds with ImageQuant™ LAS 4000 (GE Healthcare).

Signal duration

LightWave™ Plus provides an extremely extended signal duration when compared to most mid-level range ECL substrates. The HDAC-1 signal intensity variation over time was analyzed using **LightWave™ Plus** and its competitors (Figure 3).

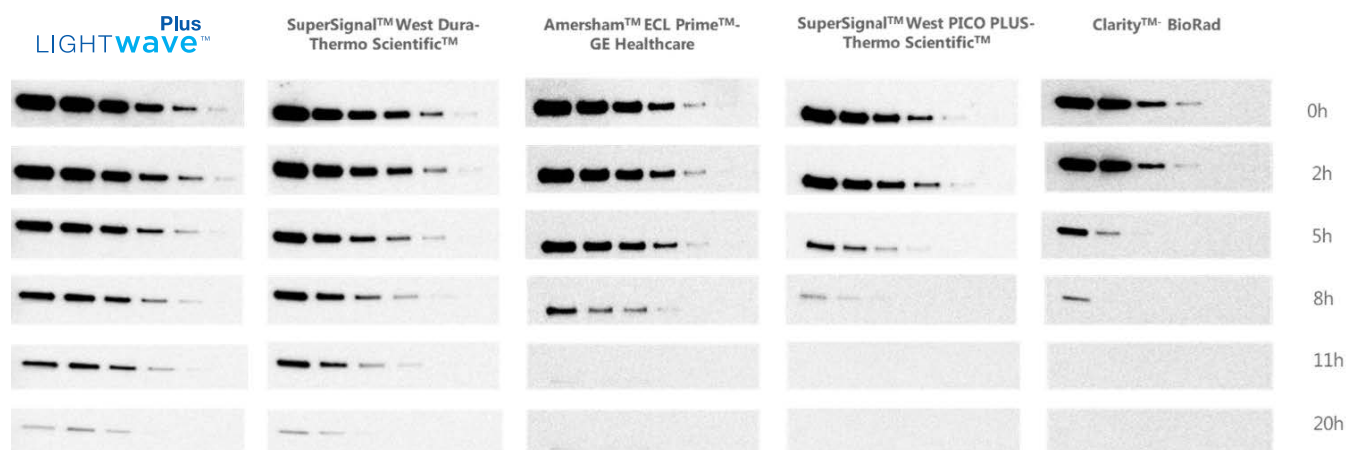


Figure 3. Signal duration of LightWave™ Plus and its competitors.

Quadruplicate blots for each substrate containing 2-fold dilutions of HeLa whole cell lysate were incubated with primary antibody (Rabbit-anti Human HDAC-1) 1:5000 and secondary antibody (Goat anti Rabbit-HRP) 1: 75000 and were simultaneously imaged with ImageQuant™ LAS 4000 (GE Healthcare) at time points up to 20 hours post substrate addition.

Code	Description
LW0003	LightWave™ Plus Western Blotting Substrate 10 ml
LW0004	LightWave™ Plus Western Blotting Substrate 250 ml