WESTAR chemiluminescent substrates
Selection guide

Various levels of sensitivity available for your Western blotting

WESTAR is our product line of two-component chemiluminescent substrates for Western blotting.
Cyanagen offers a family of products with different sensitivity, allowing from picogram to femtogram detection range.
Our proprietary technology enables fine-tuning of signal intensity to obtain the best assay sensitivity and signal duration for every experimental need.

Product	Competitors	When to use
WESTAR SUN Cod. XLS063	AMERSHAM™ ECL™ - GE HEALTHCARE AMERSHAM™ ECL™ START - GE HEALTHCARE PIERCE™ ECL - THERMO SCIENTIFIC™ IMMOBILON® CLASSICO - MILLIPORE™	Entry-level substrate for very abundant proteins
WESTAR NOVA 2.0 Cod. XLS071	PIERCE™ ECL PLUS - THERMO SCIENTIFIC™ IMMOBILON® CLASSICO - MILLIPORE™ WESTERN LIGHTNING™ PLUS - PERKINELMER WESTERNBRIGHT™ ECL - ADVANSTA	Target and sample are abundant; use when a low sensitivity is sufficient
WESTAR ANTARES Cod. XLS142	CLARITY™ - BIO-RAD SUPERSIGNAL™ WEST DURA – THERMO SCIENTIFIC™ AMERSHAM™ ECL™ PRIME - GE HEALTHCARE SUPERSIGNAL™ WEST PICO PLUS – THERMO SCIENTIFIC™ IMMOBILON® CRESCENDO - MILLIPORE™ WESTERNBRIGHT™ QUANTUM™ - ADVANSTA	Everyday applications, improved sensitivity than entry-level ECL, very long signal duration
WESTAR ETA C ULTRA 2.0 Cod. XLS075	SUPERSIGNAL™ WEST DURA – THERMO SCIENTIFIC™ AMERSHAM™ ECL PRIME™ - GE HEALTHCARE IMMOBILON® FORTE - MILLIPORE™ IMMOBILON® - MILLIPORE™ WESTERN LIGHTNING™PRO - PERKINELMER	Target is less abundant, maximum signal duration
WESTAR SUPERNOVA Cod. XLS3	CLARITY MAX™ - BIO-RAD SUPERSIGNAL™ WEST FEMTO – THERMO SCIENTIFIC™ AMERSHAM™ ECL SELECT™ - GE HEALTHCARE WESTERNBRIGHT™ SIRIUS™ - ADVANSTA WESTERN LIGHTNING™ULTRA - PERKINELMER	Target is at least abundant, very high sensitivity
WESTAR HYPERNOVA Cod. XLS149	NO COMPETITORS AT THE SAME PERFORMANCE LEVEL	Trace amounts of protein, the sample is precious, maximum sensitivity

WESTAR SUN

Our entry-level substrate for mid picogram detection level.

WESTAR SUN - Cyanagen

Pierce™ ECL - Thermo Scientific™

Amersham™ ECL - GE Healthcare

Amersham™ ECL Start - GE Healthcare

Western blotting detection of ERK-1/2 on Hela cell lysate with WESTAR SUN and its competitors.
Sample: Two-fold dilution of Hela cell lysate from 5 µg to 0.078 µg
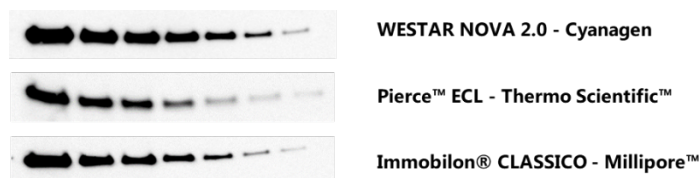Primary antibody: Rabbit anti ERK-1/2 1:1000.
Secondary antibody: Donkey anti-rabbit IgG HRP 1:5000.
Imager: Westar R (Hi Tech Cyanagen). Exposure time: 90 seconds

WESTAR NOVA 2.0

Substrate for very abundant target and sample.
Stable light output optimal for low picogram detection level.

WESTAR NOVA 2.0 - Cyanagen

Pierce™ ECL - Thermo Scientific™

Immobilon® CLASSICO - Millipore™

Western blotting detection of HDAC-1 on Hela cell lysate with WESTAR NOVA 2.0 and its competitors.
Sample: Two-fold dilution of Hela cell lysate from 5 µg to 0.078 µg
Primary antibody: Rabbit-anti Human HDAC-1 1:2000.
Secondary antibody: Goat anti-rabbit IgG HRP 1:20000.
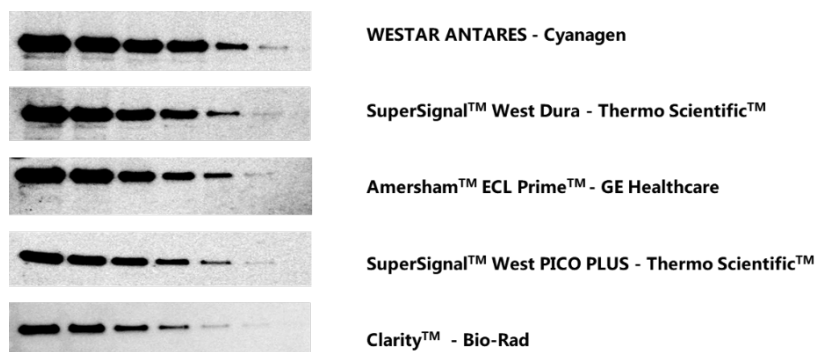Imager: ImageQuant™ LAS 4000 (GE Healthcare). Exposure time: 180 seconds

WESTAR ANTARES

Versatile substrate for a mid-femtogram detection level.
Minimal protocol optimization required.
The high sensitivity combined with a broad linear dynamic range for accurate quantification of both low and high abundance proteins in the same experiment.
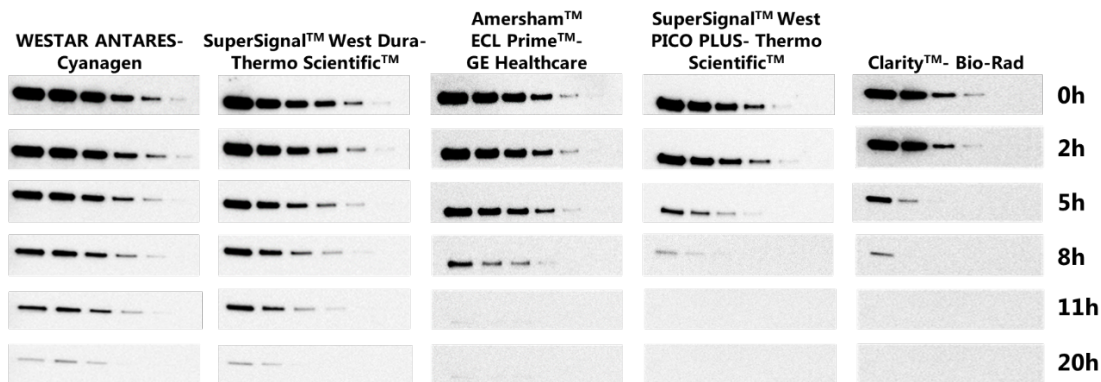Extremely long signal duration.

WESTAR ANTARES - Cyanagen

SuperSignal™ West Dura - Thermo Scientific™

Amersham™ ECL Prime™ - GE Healthcare

SuperSignal™ West PICO PLUS - Thermo Scientific™

Clarity™ - Bio-Rad

Western blotting detection of HDAC-1 on Hela cell lysate with WESTAR ANTARES and its competitors.
Sample: Two-fold dilution of Hela cell lysate from 5 µg to 0.078 µg
Primary antibody: Rabbit-anti Human HDAC-1 1:5000.
Secondary antibody: Goat anti-rabbit IgG HRP 1:75000.
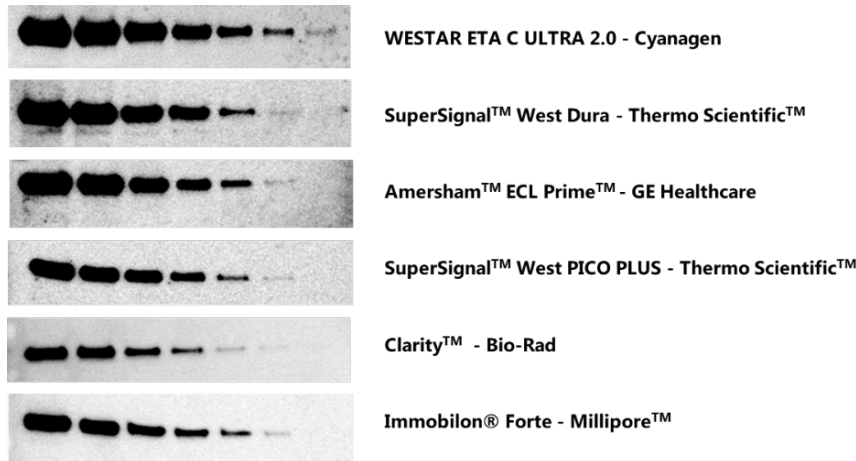Imager: ImageQuant™ LAS 4000 (GE Healthcare). Exposure time: 180 seconds.

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Western blot panels with column headers: WESTAR ANTARES- Cyanagen, SuperSignal™ West Dura- Thermo Scientific™, Amersham™ ECL Prime™- GE Healthcare, SuperSignal™ West PICO PLUS- Thermo Scientific™, Clarity™- Bio-Rad, and time points 0h, 2h, 5h, 8h, 11h, 20h.

Extended signal duration of WESTAR ANTARES.

For either WESTAR ANTARES or its competitors, exposure time is 180 seconds for each time points (0-2-5-8-11-20 hours).

WESTAR ETA C ULTRA 2.0

Perfect choice for applications requiring very high sensitivity and extended signal duration.

The strong signal in the presence of weak background, allows a high signal-to-noise ratio for mid to low femtogram detection level.
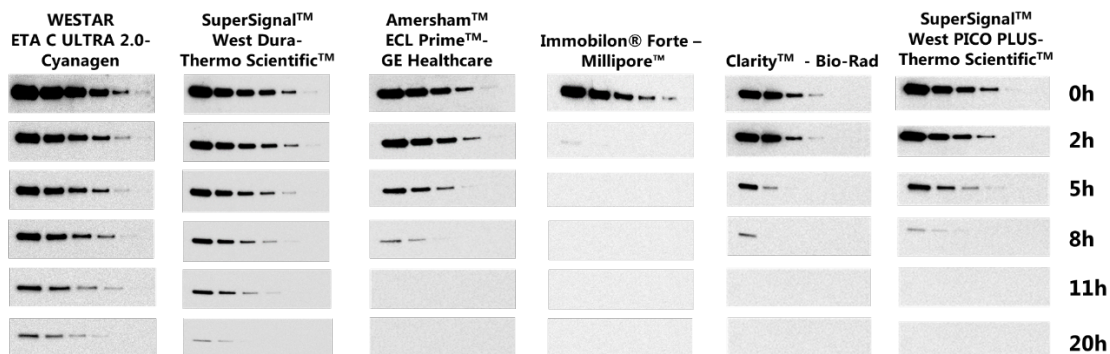

WESTAR ETA C ULTRA 2.0 - Cyanagen

SuperSignal™ West Dura - Thermo Scientific™

Amersham™ ECL Prime™ - GE Healthcare

SuperSignal™ West PICO PLUS - Thermo Scientific™

Clarity™ - Bio-Rad

Immobilon® Forte - Millipore™

Western blotting detection of HDAC-1 on Hela cell lysate with WESTAR ETA C ULTRA 2.0 and its competitors.

Sample: Two-fold dilution of Hela cell lysate from 5 μg to 0.078 μg

Primary antibody: Rabbit-anti Human HDAC-1 1:7500.

Secondary antibody: Goat anti-rabbit IgG HRP 1:100000.

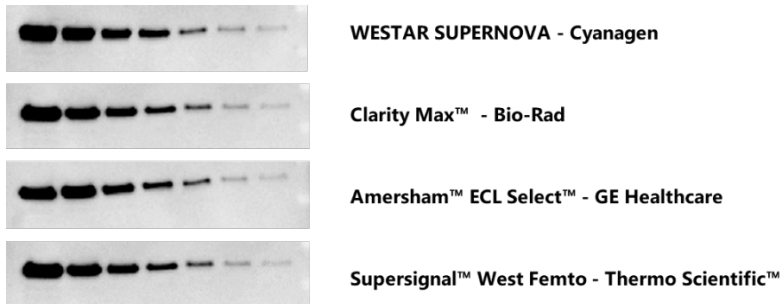Imager: ImageQuant™ LAS 4000 (GE Healthcare). Exposure time: 180 seconds.

Western blot panels with column headers: WESTAR ETA C ULTRA 2.0- Cyanagen, SuperSignal™ West Dura- Thermo Scientific™, Amersham™ ECL Prime™- GE Healthcare, Immobilon® Forte – Millipore™, Clarity™ - Bio-Rad, SuperSignal™ West PICO PLUS- Thermo Scientific™, and time points 0h, 2h, 5h, 8h, 11h, 20h.

Extended signal duration with WESTAR ETA C ULTRA 2.0.

For either WESTAR ETA C ULTRA 2.0 or its competitors, exposure time is 180 seconds for each time points (0-2-5-8-11-20 hours).

WESTAR SUPERNOVA

An ultra-sensitive substrate with low-femtogram detection level.
The excellent signal intensity and sensitivity allow detecting limited amounts of proteins with fewer antibodies.
Wide-linear dynamic range and ultra-high sensitivity are optimal for quantitative analysis.

WESTAR SUPERNOVA - Cyanagen

Clarity Max™ - Bio-Rad

Amersham™ ECL Select™ - GE Healthcare

Supersignal™ West Femto - Thermo Scientific™

Western blotting detection of HDAC-1 on Hela cell lysate with WESTAR SUPERNOVA and its competitors.
Sample: Two-fold dilution of Hela cell lysate from 2.5 μg to 0.039 μg
Primary antibody: Rabbit-anti Human HDAC-1 1:10000.
Secondary antibody: Goat anti-rabbit IgG HRP 1:300000.
Imager: ImageQuant™ LAS 4000 (GE Healthcare). Exposure time: 120 seconds.

WESTAR HYPERNOVA

The most performing substrate available on the market to date, allowing the detection of trace amounts of proteins.
Extreme signal intensity and sensitivity to enhance the accuracy of Western blotting for a more unambiguous interpretation of the faintest bands.
It is the best choice for the detection of minute amounts of proteins. This substrate allows the use of extremely diluted antibodies or to load limited amounts of cell lysates, along with the saving of precious samples and valuable primary antibodies.
Very bright bands in a few seconds of exposure thanks to the extremely high light emission.

A)

WESTAR HYPERNOVA - Cyanagen

SuperSignal™ West Femto - Thermo Scientific
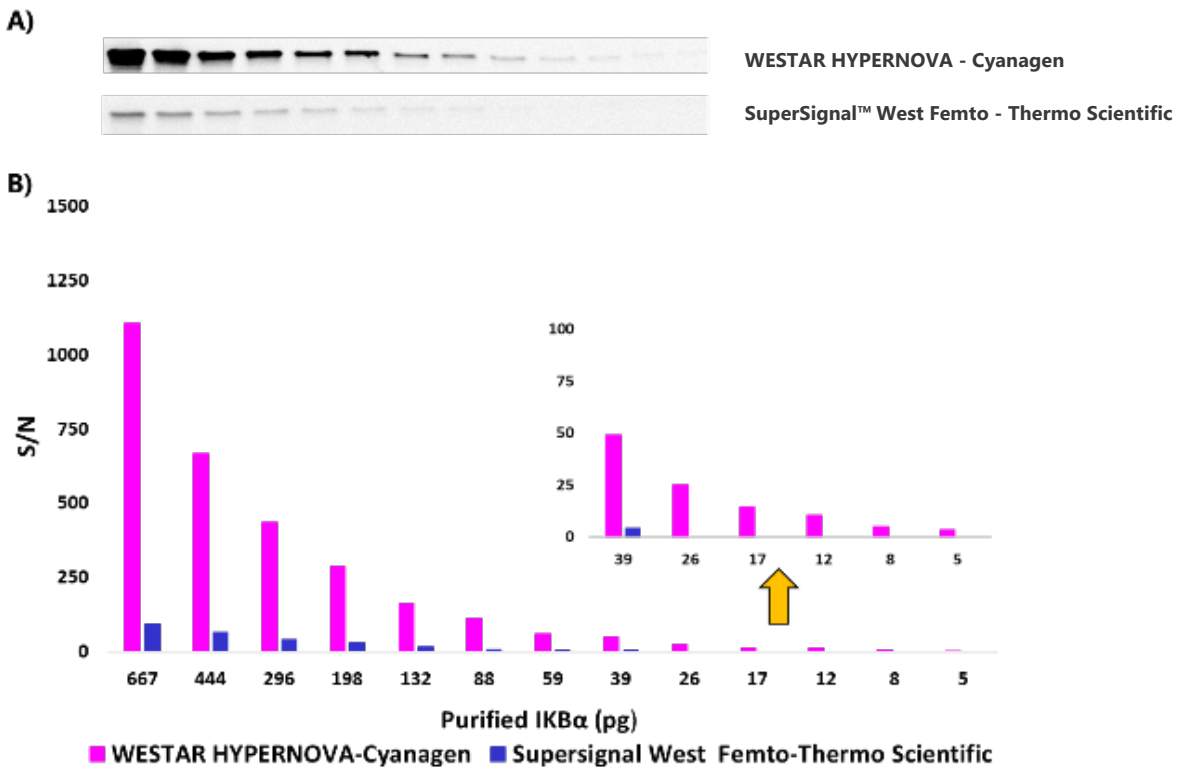
Superior sensitivity of WESTAR HYPERNOVA
A) Purified IKBα detection with either WESTAR HYPERNOVA-Cyanagen or SuperSignal™ West Femto-Thermo Scientific. Blots containing 1.5-fold dilutions of purified IKBα from 667 pg to 5 pg were simultaneously imaged for 10 seconds with ImageQuant™ LAS 4000 (GE Healthcare).
B) Signal-to-noise ratio (S/N) analysis. The inset enlargement shows the enhanced sensitivity of WESTAR HYPERNOVA.

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