

WesternBright™ chemiluminescent HRP substrates

Advanced substrates for brighter Westerns!

When you perform Western blots, do you...

- need more sensitivity for your Westerns?
- rush to the dark room because your substrate is short lived?
- want to use up to 10x less antibody for your Westerns?

Advansta has the solution!



WesternBright™ ECL & ECL Spray

Horseshradish peroxidase (HRP) substrate optimized to give bright and stable signal for a new level of sensitivity.

- ✓ **Sensitive** – detect low Picogram protein amounts
- ✓ **Save antibody** – use up to ten times less antibody per Western blot
- ✓ **Long-lasting signal** – image blots hours after substrate incubation, no rush to get to the dark room

WesternBright™ Quantum™

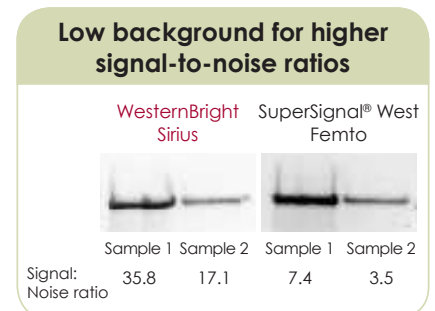
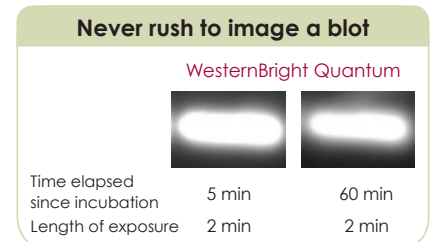
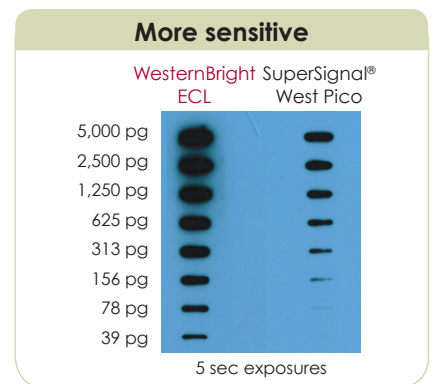
WesternBright Quantum provides a large dynamic range for detecting and quantifying high and low abundance proteins on one blot.

- ✓ **Sensitive** – detect femtograms of protein per band
- ✓ **Quantitative** – largest linear range and no band “burn out” at high protein loads
- ✓ **Long-lasting signal** – image blots hours after substrate incubation

WesternBright™ Sirius™

WesternBright Sirius is the best choice for quantifying low-abundance proteins.

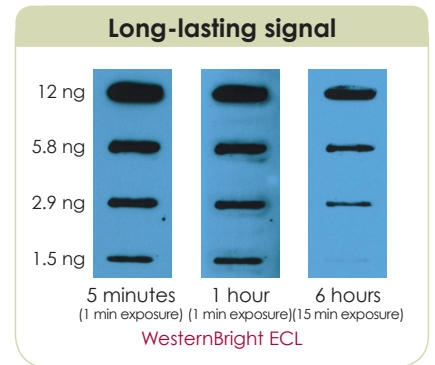
- ✓ **Sensitive** – bright, long-lasting signal to detect low-abundance proteins
- ✓ **Low background** – high signal-to-noise ratio to quantify small changes in protein levels
- ✓ **Flexibility** – image chemiluminescence by CCD or film



Customer feedback

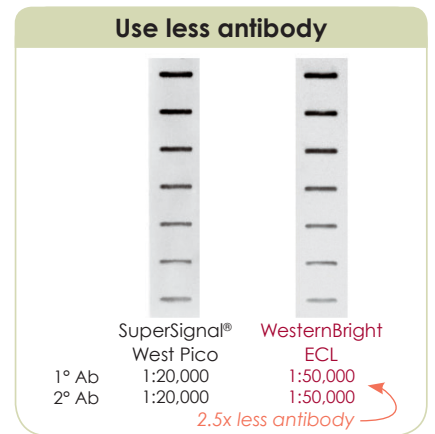
ASSISTANT PROFESSOR
BRIGHAM YOUNG
UNIVERSITY

After trying WesternBright ECL, we immediately switched from our usual brand and now use it on a weekly basis. It produces a strong, long-lasting signal with low background at a much lower cost.



SENIOR RESEARCH
LAB SPECIALIST
UNIVERSITY OF
MICHIGAN

WesternBright ECL is better than (the ECL substrate) I used to use because of its high sensitivity. Most of my research involves detecting low amounts of induced proteins, such as gp91 phox and HIF-1. I had some challenge to detect these proteins when I used other substrates; however, WesternBright ECL helps to detect these targets. Now, I can detect these proteins using less sample with the WesternBright ECL system. My whole lab has now switched to WesternBright ECL.

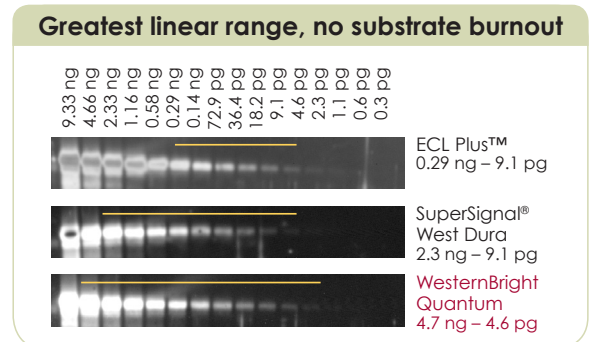


LAB MANAGER
UNIVERSITY OF NORTH
CAROLINA AT
CHAPEL HILL

We have switched to the Advansta WesternBright ECL reagent for straight western and co-IP western blotting. We have used less antibodies to suit our various needs easily. By the way, the WesternBright reagent also worked beautifully during a recent demo of a competitor's chemiluminescent imager! It performed better than the vendor's own proprietary reagent made especially for that machine!

ASSISTANT RESEARCH
PROFESSOR
OHIO STATE
UNIVERSITY

We really like the Quantum kit. We use it instead of the ECL Plus kit because the signal lasts longer and doesn't burn out as frequently.



ASSOCIATE
PROFESSOR
UNIVERSITY OF IOWA

We love the Quantum. In our hands I'd say it's 2-5x better than ECL Prime.

RESEARCH SCIENTIST
OHIO STATE
UNIVERSITY

Advansta Quantum gives a linear signal that is essential for protein quantification.

Customer feedback

POSTDOCTORAL
RESEARCHER
INDIANA UNIVERSITY

WesternBright Sirius performed better than Pierce's Femto and had much less background, while maintaining similar (if not better) sensitivity. It is also working better for my specific home-made antibodies.

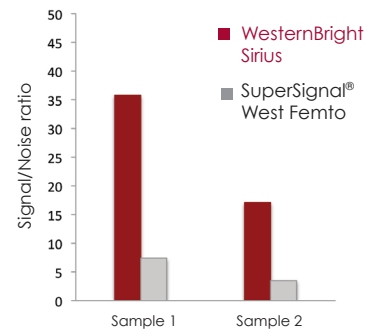
GRADUATE RESEARCH
ASSOCIATE
OHIO STATE
UNIVERSITY

The WesternBright Sirius substrate has low background and we are able to visualize phosphorylated proteins that we had difficulty seeing with our previous substrates. We have been able to dilute our primary antibodies from 1:1000 to 1:2500 – 1:5000.

GRADUATE RESEARCH
ASSOCIATE
UNIVERSITY OF
MINNESOTA

The signal lasts much longer with WesternBright Sirius, while the Pierce West Femto signal disappeared after a half an hour. Plus, WesternBright Sirius is less expensive!

Lowest background for higher signal-to-noise ratio



Recent publications using WesternBright substrates

- ▶ Ma, Y. *et al.* A species-specific activation of Toll-like receptor signaling in bovine and sheep bronchial epithelial cells triggered by Mycobacterial infections. **Mol. Immunol.** 71, 23–33 (2016).
- ▶ Amsalem, A. R. *et al.* Differential regulation of translation and endocytosis of alternatively spliced forms of the type II bone morphogenetic protein (BMP) receptor. **Mol. Biol. Cell** 27, 716–30 (2016).
- ▶ Goldhahn, K. *et al.* Antiproliferative and pro-apoptotic activities of a novel resveratrol prodrug against Jurkat CD4+ T-cells. **Anticancer Res.** 36, 683–9 (2016).
- ▶ Dugger, B. N. *et al.* The presence of select tau species in human peripheral tissues and their relation to Alzheimer's disease. **J. Alzheimer's Dis.** Preprint, 1–12 (2016).
- ▶ Zhai, L., Sun, N., Han, Z., Jin, H.-C. & Zhang, B. Liposomal short-chain C6 ceramide induces potent anti-osteosarcoma activity in vitro and in vivo. **Biochem. Biophys. Res. Commun.** 468, 274–80 (2015).
- ▶ Dai, P. *et al.* Unraveling molecular differences of gastric cancer by label-free quantitative proteomics analysis. **Int. J. Mol. Sci.** 17, 69 (2016).
- ▶ Schminke, B., Frese, J., Bode, C., Goldring, M. B. & Miosge, N. Laminins and nidogens in the pericellular matrix of chondrocytes: their role in osteoarthritis and chondrogenic differentiation. **Am. J. Pathol.** 186, 410–8 (2016).

Additional publications can be found at www.advansta.com/resources/publications



Advansta: solutions for protein characterization

Advansta provides innovative products for Western blotting, from sample preparation to sensitive chemiluminescent detection. Need faster detection, greater sensitivity, higher dynamic range? **Advansta has the solution.**



Which WesternBright™ substrate is right for you?

Advansta Substrate	Use	Sensitivity (pg antigen)	Signal Duration (hours)	Compare Performance to:
WesternBright™ ECL	Sensitive, economical choice for routine Western blotting	Low Picograms	6-8 hours	Amersham™ ECL™ SuperSignal® West Pico® Pierce® ECL Pierce® ECL Plus
WesternBright™ Quantum™	Extended dynamic range for detecting low and high abundance proteins within the same blot	Mid femtograms	10-24 hours	Amersham™ ECL™ Prime SuperSignal® West Dura®
WesternBright™ Sirius™	Low abundance protein detection	Low femtograms	6-8 hours	Amersham™ ECL Select™ SuperSignal® West Femto®

Ordering Information

Catalog Number	Product	Size
K-12045-D20	WesternBright™ ECL Western Blotting HRP Substrate	For 2000 cm ² membrane 200 ml
K-12045-D50	WesternBright™ ECL Western Blotting HRP Substrate	For 5000 cm ² membrane 500 ml
K-12049-D50	WesternBright™ ECL Spray Western Blotting HRP Substrate	For 5000 cm ² membrane 500 ml
K-12042-D10	WesternBright™ Quantum™ Western Blotting HRP Substrate	For 1000 cm ² membrane 100 ml
K-12042-D20	WesternBright™ Quantum™ Western Blotting HRP Substrate	For 2000 cm ² membrane 200 ml
K-12043-D10	WesternBright™ Sirius™ Western Blotting HRP Substrate	For 1000 cm ² membrane 100 ml
K-12043-D20	WesternBright™ Sirius™ Western Blotting HRP Substrate	For 2000 cm ² membrane 200 ml

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