

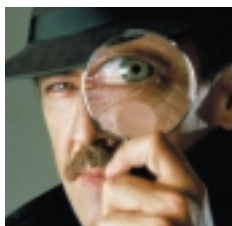
You'll never have to worry about
your **background** again.



Western Blot Detection that:

- Yields Low Background
- Produces Strong, Long-Lasting Signals
- Is Fast and Easy to Perform

Low Background, Highly Sensitive Results



WesternBreeze™ is the first and only western blotting immunodetection system that allows you to obtain low background/high signal blots using one fast, easy protocol. With the WesternBreeze™ Kits, you'll get great results and save time on every western blot.

Low Background, High Sensitivity

The WesternBreeze™ Immunodetection Kits yield low background/high signal results in all your western detection experiments. That's because all the solutions in the kits are pre-formulated at specific concentrations to eliminate the variables involved in western blot detection. You no longer have

to worry about high background/low signal blots. The western blots in Figure 1 demonstrate the clear background and high sensitivity that is achieved with the WesternBreeze™ Chemiluminescent and Chromogenic Detection Kits. With the WesternBreeze™ Kits, you're guaranteed great results every time.

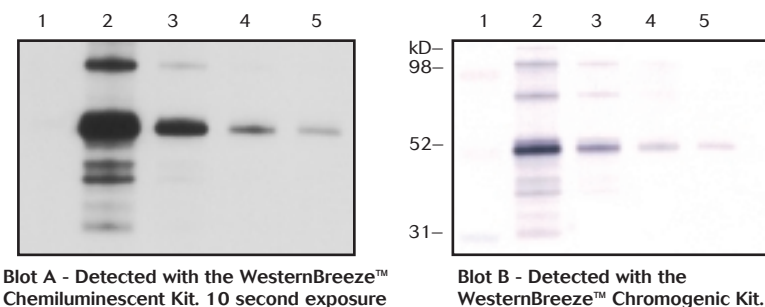


Figure 1 – Human IgG Detected with the WesternBreeze™ Kits

Human IgG (h-IgG) was separated on a NuPAGE® 4-12% Bis-Tris gel (w/MES SDS Buffer) and transferred to a Novex® nitrocellulose membrane. The blot was probed with a 1:500 dilution of rabbit anti-human IgG and developed with the indicated WesternBreeze™ Anti-Rabbit Kit.

Lane 1: 3 µl MultiMark® Multi-Colored Standard
Lane 2: 10 ng of h-IgG
Lane 3: 1 ng of h-IgG
Lane 4: 100 pg of h-IgG
Lane 5: 10 pg of h-IgG

Time-Saving Protocol

The pre-optimized reagents and fast protocol in the WesternBreeze™ Kits save you time and effort. Currently you may spend days, even weeks, making solutions and figuring out appropriate concentrations for your western blotting reagents. With the WesternBreeze™ Kits, the optimization work has been done for you. All reagents are provided ready-

to-use or simple-to-dilute. You won't waste time dealing with hard-to-dissolve raw chemicals. In addition, the fast, simple WesternBreeze™ protocol allows you to get results in less than three hours. You save up to 17 hours over the conventional western blotting protocol (Table 1).

Table 1- Time Comparison of the WesternBreeze™ and Conventional Western Blotting Protocols

Major Steps	WesternBreeze™ Protocol	Conventional Protocol
Prepare solutions	5 minutes	30 minutes
Incubate membrane in blocking solution	30 minutes	1 to 15 hours
Incubate membrane in primary antibody	1 hour	1 to 2 hours
Incubate membrane in secondary antibody	30 minutes	1 to 2 hours
Total time	< 3 hours	4 to 20 hours

WesternBreeze™

Outperforms ECL Systems

Fast, Long-Lasting Signals

Many other western blot detection systems quickly degrade signals once that are produced. This means that you may not have enough time to capture signals if a dark room, X-ray developer, or imaging system becomes unavailable. With the pre-optimized reagents in the WesternBreeze™ system, you'll get strong signals—that can last several days—in just minutes. The western blots in

Figure 2 clearly demonstrate the strong signals immediately obtained with the WesternBreeze™ Chemiluminescent Kit. As you can see, the signals outlast those detected with the ECL or ECL Plus Systems. With WesternBreeze™, you'll get great results whenever you're ready.

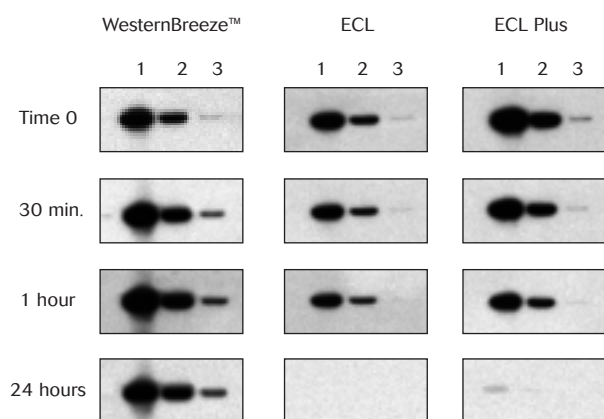


Figure 2 – Signals Achieved with the WesternBreeze™, ECL , and ECL Plus

A 53kD protein containing a V5 epitope (Positope™) was separated on a NuPAGE® 4-12% Bis-Tris gel (w/MES buffer) then transferred to a Novex® PVDF membrane. All blots were probed with a 1:5000 dilution of anti-V5 primary antibody. Detection was performed using anti-mouse versions of WesternBreeze™, ECL, and ECL Plus western detection systems with film exposures taken over time. Exposures were 2 minutes in duration with all three blots exposed on the same piece of film. 'Time 0' refers to an exposure taken less than 5 minutes after excess substrate removal. Subsequent time points are number of minutes/hours after Time 0.

Lane 1: 20 ng Positope™
Lane 2: 2 ng Positope™
Lane 3: 200 pg Positope™

Choose the Kit That Fits

Six different WesternBreeze™ Kits are currently available so there's likely to be one to meet your needs. The WesternBreeze™ Immunodetection Kits provide you with three choices of alkaline phosphatase-conjugated secondary antibody—anti-mouse, anti-rabbit, or anti-goat—depending on the species

of the primary antibody you select. Each version also gives you the choice of using chromogenic or chemiluminescent detection. Table 2 summarizes the advantages of the WesternBreeze™ Chromogenic and Chemiluminescent Immunodetection Kits.

Table 2 – Comparison of the WesternBreeze™ Chromogenic and Chemiluminescent Detection Kits

	Chromogenic Detection Kit	Chemiluminescent Detection Kit
Substrate	Ready-to-use BCIP/NBT	Ready-to-use CDP-Star®
Background	Clear	Clear
Sensitivity	Highly sensitive (low picogram levels detectable)	Ultra-sensitive (femtogram levels detectable)
Specificity	Highly specific	Highly specific
Choice of 2° Antibody	anti-mouse, anti-rabbit, or anti-goat	anti-mouse, anti-rabbit, or anti-goat
Additional Equipment Required	None	Film and X-ray developer or imaging system

Get Great Results Today

Everything you need

The WesternBreeze™ Immunodetection Kits come with everything you need for western blot detection. Each kit includes ready-to-use or simple-to-dilute blockers, primary antibody diluent, wash solution, conjugated secondary antibody solution, substrate, and two convenient incubation trays. In addition, pre-cut plastic sheets and filter papers are provided in the chemiluminescent kits for easy and even substrate development. All you need to supply is your

primary antibody. With the WesternBreeze™ Kits, western blot detection is easier and more convenient than ever.

Clear Your Background Today

When you need low background/high signal western blot detection that's fast and easy to perform, here's a tip—choose WesternBreeze.™ Call Invitrogen and order your kit today.

Ordering information

Description	Quantity	Cat. no.	Price
WesternBreeze™ Chemiluminescent Detection Kit			
Anti-Mouse	1 kit*	WB7104	\$249
Anti-Rabbit	1 kit*	WB7106	\$249
Anti-Goat	1 kit*	WB7108	\$249
WesternBreeze™ Chromogenic Detection Kit			
Anti-Mouse	1 kit*	WB7103	\$199
Anti-Rabbit	1 kit*	WB7105	\$199
Anti-Goat	1 kit*	WB7107	\$199
Membrane/Filter Paper Sandwiches, Pre-cut (8.3x7.5 cm)			
Nitrocellulose Membranes (0.2 µm)	20 sandwiches	LC2000	\$99
Nitrocellulose Membranes (0.45 µm)	20 sandwiches	LC2001	\$99
PVDF Membranes (0.2 µm)	20 sandwiches	LC2002	\$99

*Each kit supplies sufficient reagents for detection of 20 mini-blot.

The NuPAGE® System is covered under U.S. Patent no. 5,578,180.

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