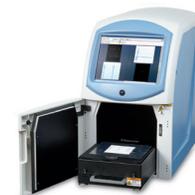


Complete, innovative western workflow solutions





# Contents

Western workflow overview	4
<hr/>	
<b>Separate</b>	
Precast gels	6
Protein ladders	8
Power supplies, gel tanks	10
Pierce™ Power Stainer, protein stains	12
<hr/>	
<b>Transfer</b>	
Mini Blot Wet Transfer Module, Pierce™ Power Blotter	14
iBlot® 2 Dry Blotting System	16
<hr/>	
<b>Detect</b>	
iBind™ Western System	17
Antibodies for western detection	18
Chemiluminescent substrates	19
Gel imaging	20
Ordering information	22
<hr/>	

# Separate. Transfer. Detect.

Forget your past western frustrations. Now you can improve the quality of your western data while simultaneously reducing your time and effort. For each of the three steps of the western workflow, we offer high-performance tools and technologies to make the process quick and easy.

## Separate

- **Mini Gel Tank** for convenient electrophoresis: a versatile tank compatible with more than 180 gels, with innovative side-by-side design for clear visualization and faster sample loading
- **Bolt® and NuPAGE® Bis-Tris Gels** for optimal separation of small- to medium-sized proteins under denaturing conditions: offers preserved protein integrity with a neutral-pH buffering system
- **Thermo Scientific™ Pierce™ Power Stainer** for rapid, electrophoretic coomassie staining of proteins in polyacrylamide gels, typically in 6 to 11 minutes
- **Protein ladders** for reliable and proportional band intensities in stained gels and immunoblots developed with chemiluminescent, fluorescent, chromogenic, or other detection systems



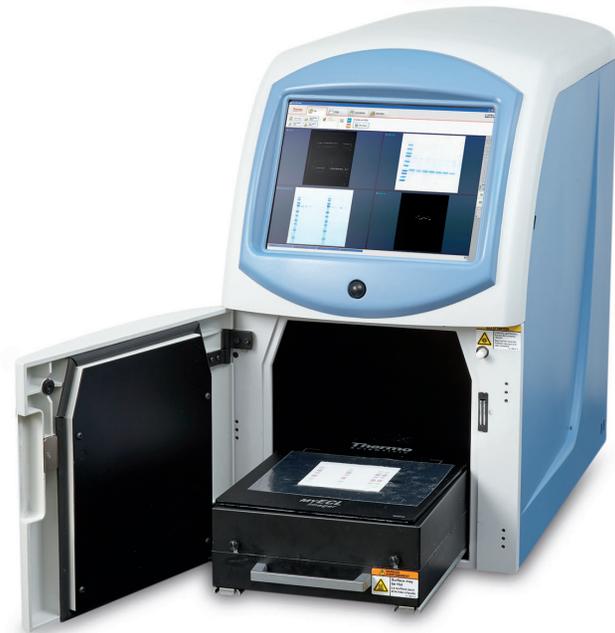
## Transfer

- **Mini Blot Wet Transfer Module** for seamless transfer in the Mini Gel Tank: fits inside the tank and requires less methanol-based transfer buffer than other commercially available transfer systems
- **Thermo Scientific™ Pierce™ Power Blotter** designed specifically for rapid semi-dry transfer of 10 to 300 kDa proteins from polyacrylamide gels to nitrocellulose or PVDF membranes, typically in 5 to 10 minutes
- **iBlot® 2 Dry Blotting System** for self-contained, reproducible, and flexible gel transfer in only 7 minutes: compatible with multiple gel chemistries, membrane types, and gel sizes



## Detect

- **iBind™ Western System** for automated western processing: requires no power source or battery. Just load your solutions and allow the sequential lateral flow technology to work for you
- **Primary and secondary antibodies** for reproducible western blot analysis: Life Technologies™ and Pierce™ antibodies that are fully validated, specific, sensitive, reliable, and affordable
- **Chemiluminescent HRP substrates** for excellent performance in western blotting: Thermo Scientific™ Pierce™ ECL, Pierce™ ECL Plus, and SuperSignal™ Chemiluminescent Substrates deliver high sensitivity, long signal duration, strong signal intensity, and low background
- **myECL™ Imager** for one-touch image capture of western blots: a powerful and easy-to-use blot and gel documentation instrument for sensitive, multimode image capture and analysis that works with chemiluminescent, colorimetric, or UV light-activated fluorescent substrates or stains



# Separate

The first step of the western workflow process is separation of proteins. We offer several options for protein separation, including precast gels, reagents, and accessories for pour-your-own gels, ladders, electrophoresis chambers, and power supplies.

## Precast gels

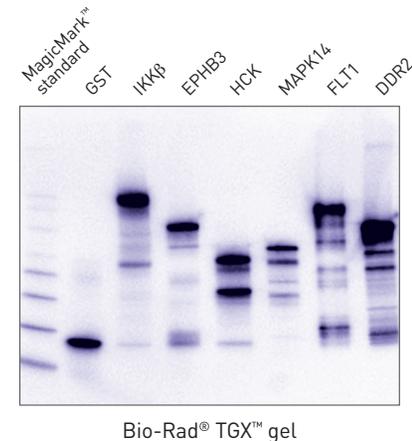
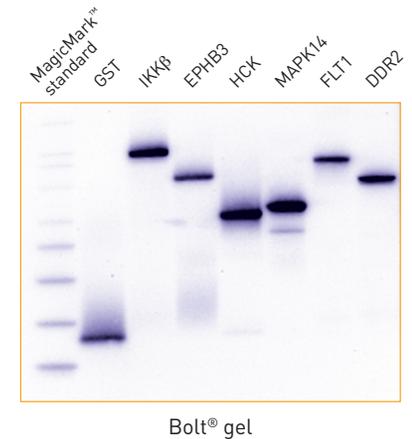
Precast gels offer convenience, speed, and consistency. We offer precast gels in a wide variety of percentages, gradients, and number of wells, as well as the most popular chemistries and running buffers.

### Options to fit your protein separation needs:

- The Novex® Tris-Glycine Express Kit for precast gel convenience with Laemmli chemistry
- Bolt® gels with high-volume wedge wells for sensitive western blot analysis
- Classic NuPAGE® gels for high resolution and long shelf life

**Bolt® Bis-Tris Plus Gels:** precast polyacrylamide gels designed for optimal separation of a broad molecular weight range of proteins under denaturing conditions. The high-capacity, wedge-well design accommodates more sample volume. Bolt® gels are designed to deliver western performance superior to that of Tris-glycine-based gels.

- Superior band quality and band volume
- Better protein resolution—10% greater resolving distance and optimized gradient format
- Preserved protein integrity—neutral-pH formulation that minimizes protein modifications
- Excellent lot-to-lot consistency
- High sample loading capacity—2x more sample volume

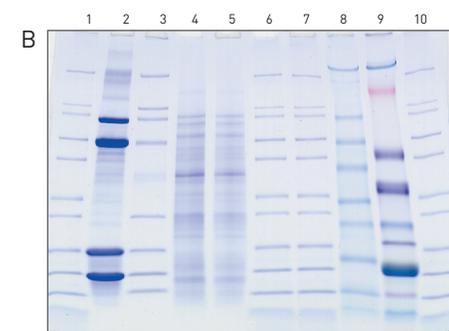


A western blot of a Bolt® gel shows clean, sharp protein signals corresponding to only full-length proteins, whereas a western blot of a Bio-Rad® TGX™ gel shows multiple low molecular weight degradation products. Protein kinases implicated in cancer (IKK $\beta$ , EPHB3, HCK, MAPK14, FLT1, and DDR2) were analyzed on a Bolt® Bis-Tris Plus Gel and a Bio-Rad® TGX™ Tris-glycine gel.

For mini and midi gel protein electrophoresis, the NuPAGE® SDS-PAGE Gel System is referenced in thousands of peer-reviewed articles and includes NuPAGE® Bis-Tris gels for small- to mid-size molecular weight proteins, NuPAGE® Tris-acetate gels for high molecular weight proteins, and a complete menu of sample and running buffers.

The **NuPAGE® SDS-PAGE Gel System**, similar to the Bolt® system, simulates the denaturing conditions of the traditional Laemmli system (Tris-glycine SDS-PAGE gels). NuPAGE® gels use a unique buffer formulation to maintain a neutral operating pH during electrophoresis, minimizing the “smiles” and poor resolution seen with Tris-glycine SDS-PAGE gels. NuPAGE® Bis-Tris and Tris-acetate gels also offer:

- Superior protein band resolution and stability
- Faster sample run times, at 35 to 50 minutes
- Long product shelf life—16 months
- More efficient western blot transfer



Protein separation using (A) a Novex® NuPAGE® gel and (B) another manufacturer's traditional Tris-glycine gel.

## Protein ladders

We offer a broad range of prestained and unstained protein ladders supplied in a ready-to-use format to facilitate easy protein analysis during gel electrophoresis and western blotting.

Prestained protein ladders are recommended for:

- Approximate determination of molecular weight
- Monitoring the progress of electrophoresis runs
- Estimating the efficiency of protein transfer to the membrane during western blotting

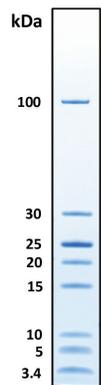
Unstained protein ladders are recommended for:

- Precise determination of target protein molecular weights in any buffer system

Our protein ladders offer extraordinary value—high quality without the high price:

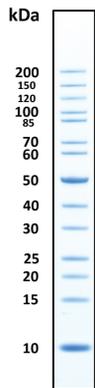
- **Performance**—sharp protein bands and consistent migration patterns provide easy molecular weight determination
- **Convenient**—protein ladders are ready to load, with no heating required
- **Reliable**—exceptional lot-to-lot consistency and reproducibility

Protein Ladders				
	MW range	Product	No. of proteins	Range
Unstained	Low	PageRuler™ Unstained Low Range Protein Ladder	8	3.4–100 kDa
	Broad	PageRuler™ Unstained Protein Ladder	14	10–200 kDa
	High	NativeMark™ Unstained Protein Standard	8	20–1,200 kDa
Prestained	Low	PageRuler™ Prestained Protein Ladder	10	10–170 kDa
	Broad	PageRuler™ Plus Prestained Protein Ladder	9	10–250 kDa
	High	HiMark™ Pre-stained Protein Standard	9	30–460 kDa
Multicolor prestained	Broad	Spectra™ Multicolor Broad Range Protein Ladder	10	10–260 kDa
	High	Spectra™ Multicolor High Range Protein Ladder	8	40–300 kDa
Other	Western	MagicMark™ XP Protein Standard	9	20–220 kDa
	Specialty	PageRuler™ Prestained NIR Protein Ladder	10	11–250 kDa
		BenchMark™ Fluorescent Protein Standard	7	11–155 kDa
		BenchMark™ His-tagged Protein Standard	10	10–160 kDa
		IEF Marker 3-10	13	3–10 pI



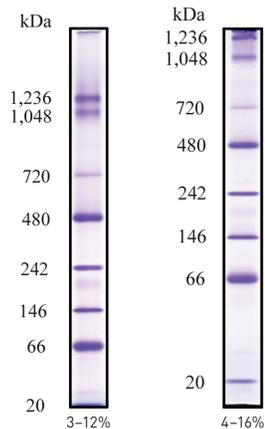
**PageRuler™  
Low Range**  
PI26632

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



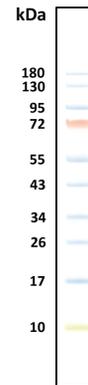
**PageRuler™  
Unstained**  
PI26614

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



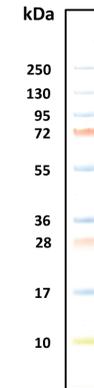
**NativeMark™  
Unstained Protein Standard**  
LC0725

NativePAGE® Bis-Tris Gels  
Gel load volume of 5 µL  
Stained using coomassie R-250



**PageRuler™ Plus  
Prestained**  
PI26616

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



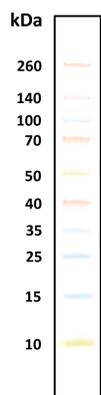
**PageRuler™ Plus  
Prestained**  
PI26619

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



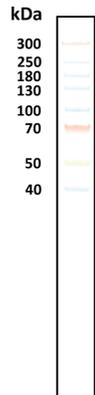
**HiMark™  
Pre-stained**  
LC5699

NuPAGE® 3–8% Tris-acetate  
SDS buffer



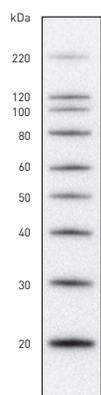
**Spectra™ Multicolor  
Broad Range**  
PI26634

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



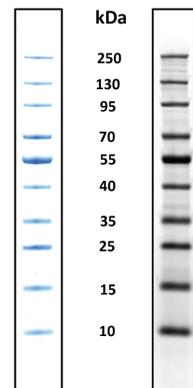
**Spectra™ Multicolor  
High Range**  
PI26625

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



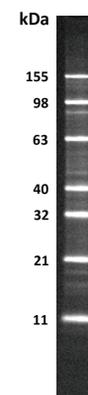
**MagicMark™ XP**  
LC5602

NuPAGE® Bis-Tris Gel,  
blotted to nitrocellulose,  
detected w/WesternBreeze®  
Chemiluminescent Kit



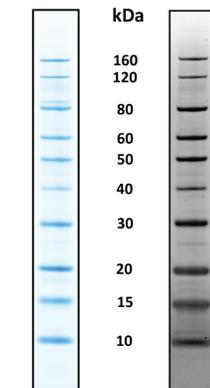
**PageRuler™  
Prestained NIR**  
PI26635

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



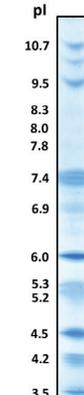
**BenchMark™  
Fluorescent**  
LC5928

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



**BenchMark™  
His-tagged**  
LC5606

NuPAGE® 4–12% Bis-Tris  
Gel w/MES SDS buffer



**IEF  
Marker 3-10**  
PI39212-01

Novex®  
pH 3–10 Gel

## PowerEase® power supplies

The **PowerEase® 90W Power Supply** is designed specifically for mini gel electrophoresis. The straightforward, intuitive interface makes the powering of gel runs a simple and easy process. In addition, the PowerEase® 90W Power Supply features:

- Constant voltage or current settings
- Built-in timer for walk-away gel electrophoresis
- Output jacks that are compatible with most electrophoresis devices

The **PowerEase® 300W Power Supply** is a fully programmable power supply designed for high-throughput gel electrophoresis. The straightforward, intuitive interface makes the powering of gel runs a simple and easy process. In addition, the PowerEase® 300W Power Supply features:

- Constant voltage, current, or power settings
- Built-in timer for walk-away gel electrophoresis
- Up to 10 custom programs with 10 steps each
- Four sets of output jacks that are compatible with most electrophoresis devices



## Gel tanks

The **Mini Gel Tank** is designed for more intuitive use and convenience compared to traditional electrophoresis tanks.

- Versatile—compatible with NuPAGE®, Bolt®, or Novex® gels
- Easy sample loading—with forward-facing well configuration
- Simultaneous visualization of both gels—streamlined, side-by-side tank configuration
- Simplified monitoring of prestained protein markers—with white tank stand
- Less running buffer required—two separate gel chambers, so you only need to load sufficient buffer for each gel to the specified fill line



The **XCell4 SureLock™ Midi-Cell** allows simultaneous vertical electrophoresis of 1 to 4 midi gels without leaking, enabling consistent performance. It uses proprietary technology to make electrophoresis easier and more reliable than ever, and is designed to dissipate heat effectively and evenly, and enable high-resolution results when using Novex® midi gels.



## Pierce™ Power Stainer

The **Pierce™ Power Stainer** is designed for rapid coomassie staining of proteins in up to two mini polyacrylamide gels and subsequent removal of unbound stain from the gel in a single step.

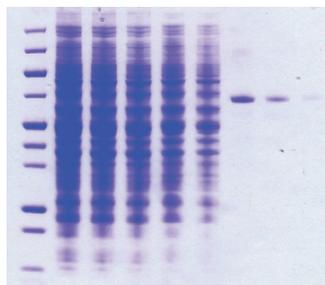
Traditional coomassie staining techniques require a 1-hour to overnight staining step and a separate destaining step(s) for desired results. The Pierce™ Power Stainer, when used with Thermo Scientific™ Pierce™ Power Staining Kits, provides efficient protein staining and gel destaining, typically in about 10 minutes, producing results equivalent to or better than traditional coomassie staining techniques.

- **Fast**—coomassie staining and destaining of proteins in about 10 minutes
- **Convenient**—simultaneously stain and destain 1–2 mini gels or 1 midi gel
- **Reliable performance**—enables staining results that are equivalent to traditional staining techniques
- **Easy-touch programming**—intuitive LCD touchscreen interface includes pre-programmed protocols



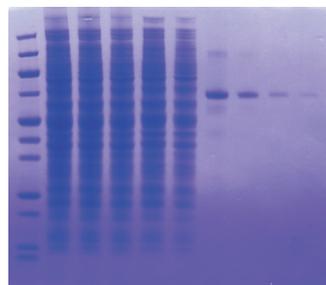
The Thermo Scientific™ Pierce™ Power Stainer enables rapid coomassie staining of proteins

Pierce™ Power Stainer



Total time: 11 minutes

Conventional Coomassie Stain



Total time: 230 minutes to overnight

\*Coomassie stain solution: 45% Methanol, 10% Acetic Acid, 0.25% R-250 coomassie

\*\*Destain solution: 30% Ethanol, 5% Acetic Acid

## Protein stains

Once protein bands have been separated by electrophoresis, they can be visualized using different methods of in-gel detection. Whether you just need a quick visual confirmation or require a highly sensitive stain to detect low-abundance proteins, we offer a variety of easy-to-use, effective protein stains for in-gel detection.

Check out our comprehensive collection of stains and choose the protein stain most suitable for you:

Protein Stains			
	Coomassie staining	Silver staining	Fluorescent protein staining
<b>Sensitivity</b>	25 ng	0.5 ng	0.5 ng
<b>Ease of use</b>	+++	+	+
<b>Mode of action</b>	In acidic buffer conditions, coomassie dye binds to basic and hydrophobic residues of proteins, changing from dull reddish-brown to intense blue.	Silver ions interact and bind with carboxylic acid groups (Asp and Glu), imidazole (His), sulfhydryls (Cys), and amines (Lys). Silver ions are reduced to metallic silver, resulting in brown-black color.	Most fluorescent stains involve simple dye-binding mechanisms rather than chemical reactions that alter protein functional groups.
<b>Detection</b>	Visual	Visual	Compatible imaging system
<b>Compatibility with downstream applications</b>	MS and sequencing compatible	Certain formulations are MS compatible	Most stains are MS compatible
<b>Products</b>	<p><b>Value:</b> PageBlue™ Protein Stain</p> <p><b>Performance:</b> SimplyBlue™ SafeStain</p> <p><b>Premium:</b> Imperial™ Protein Stain</p>	<p><b>Value:</b> Pierce™ Silver Stain Kit</p> <p><b>Performance:</b> SilverXpress® Silver Stain</p> <p><b>Mass Spec:</b> Pierce™ Silver Stain Kit for MS</p>	<p><b>Value:</b> SYPRO® Red Protein Gel Stain</p> <p><b>Performance:</b> SYPRO® Orange Protein Gel Stain</p> <p><b>Premium:</b> SYPRO® Ruby Protein Gel Stain</p>



# Transfer

After proteins have been separated by gel electrophoresis, the next step in the western workflow is to immobilize the proteins on a nitrocellulose or PVDF membrane. We offer several gel transfer options: wet, 5- to 10-minute semi-dry, and the 7-minute dry transfer.

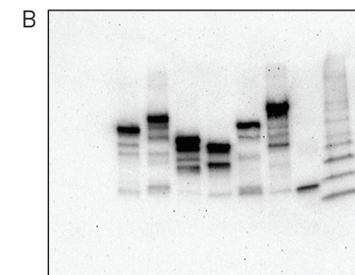
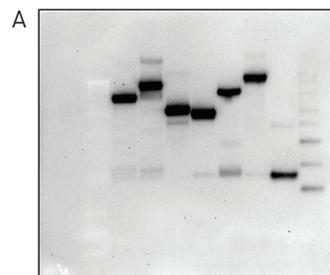
## Run and transfer gels in one tank

The **Mini Blot Wet Transfer Module** is a wet-transfer device for use with the Mini Gel Tank. The tank accommodates one blot module per chamber, or two blot modules total with the side-by-side layout. This affordable, leak-resistant module requires less transfer buffer than other transfer systems, and the constant resistance across the blotting electrodes helps ensure uniform field strength for highly efficient western transfers.

- **Unique gasket seal**—helps prevent buffer leakage so there is less mess during setup of your western transfer
- **½-inch buffer chamber**—requires only half the volume of methanol-based transfer buffer
- **Standard 60-minute transfer protocol**—accelerates your western workflow so you can get results fast



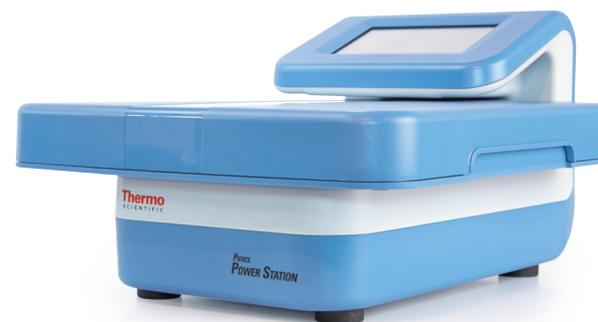
A western blot of a Bolt™ gel shows clean, sharp protein signals corresponding to only full-length proteins, whereas a western blot of a Bio-Rad® TGX™ gel shows multiple low molecular weight degradation products. Protein kinases implicated in cancer (IKKB, HCK, EPHB3, MAPK14, FLT1, and DDR2) were analyzed on **(A)** a Bolt™ Bis-Tris Plus gel and **(B)** a Bio-Rad® TGX™ Tris-glycine gel. Protein samples were prepared for electrophoresis according to each manufacturer's protocol. The purified kinases (50 ng each) as GST fusion proteins, along with MagicMark™ XP protein standard and purified recombinant GST, were loaded in a Bolt™ 4–12% gel and a Bio-Rad® TGX™ 4–20% gel. The samples were separated and transferred to PVDF membranes using the Bolt™ Mini Blot Module for the Bolt™ gels or on the Bio-Rad® transfer system. Blot detection was performed using an anti-GST antibody and a WesternBreeze® Chemiluminescence Detection Kit. The membranes were then imaged using an LAS-1000 system (Fujifilm) with an exposure time of 1 minute.



The Thermo Scientific™ Pierce™ Power Blotter is designed for rapid semi-dry transfer of 10 to 300 kDa proteins from polyacrylamide gels to nitrocellulose or PVDF membranes, typically in 5 to 10 minutes, when used with Pierce™ 1-Step Transfer Buffer.

The Pierce™ Power Blotter features an integrated power supply optimized to deliver consistent, high-efficiency protein transfer when used with precast or homemade gels (SDS-PAGE) and nitrocellulose or PVDF membranes. The Power Blot cassette enables the simultaneous transfer of up to four mini gels or two midi gels.

- **Integrated power supply**—seamless operation between control unit and cassette provides consistent high-efficiency protein transfer
- **Easy-touch programming**—access pre-programmed transfer methods or create, save, and run customized transfer methods
- **Flexible gel formats**—transfer two midi gels or four mini gels simultaneously

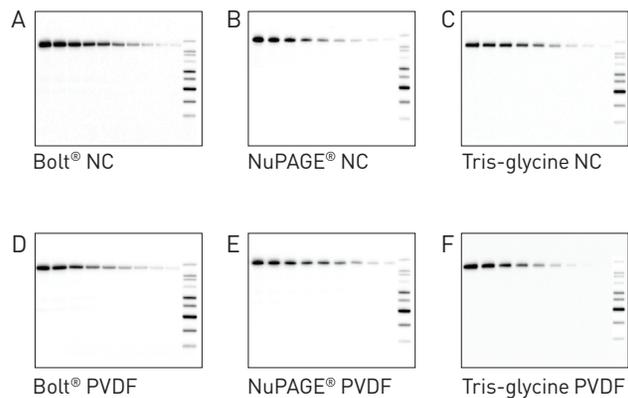


Low (<25 kDa)	Mid (25-150 kDa)	High (>150 kDa)	Molecular weight range
Thermo Scientific™ Precise™ Protein Gel (Tris-glycine)	NuPage™ 4–12% Bis-Tris Gel	NuPage™ 4–12% Bis-Tris Gel	Gel type
Nitrocellulose	Nitrocellulose	PVDF	Membrane
Cyclophilin B (21 kDa)	PLK-1 (67 kDa)	mTOR (289 kDa)	Target protein and size
			Pierce™ Power Blotter 10 minutes
			Trans-Blot® Turbo™ 10 minutes
			Conventional semi-dry 1 hour
			Conventional tank Overnight

The Thermo Scientific™ Pierce™ Power Blotter allows rapid transfers of low-, medium-, and high-molecular weight proteins.

The iBlot® 2 Dry Blotting System is designed to deliver self-contained, reproducible, and flexible gel transfer in 7 minutes. The system doesn't use separate buffers or an external power supply, and you don't have to sacrifice efficiency or uniformity.

- Compatible with multiple gel chemistries (Bis-Tris, Tris-glycine, and Tris-acetate) and membrane types (PVDF and nitrocellulose)
- Flexible gel formats: transfer one midi or two mini gels simultaneously
- Touchscreen interface for ease of use



Membranes processed on the iBlot® 2 Dry Blotting System show consistent transfer across various protein gel chemistries to both nitrocellulose (NC) and PVDF membranes. Total cell extracts from A431 cells were transferred to NC membranes from 4–12% Bolt®, 4–12% NuPAGE®, and 4–20% Tris-glycine precast gels (A–C), and also to PVDF membranes from the same types of gels (D–F), using the iBlot® 2 Dry Blotting System.



## Pierce™ Reversible Protein Stain Kits

Thermo Scientific™ Pierce™ Reversible Protein Stain Kits for Membranes are rapid and sensitive alternatives to Ponceau S stain for protein detection on nitrocellulose or PVDF membranes after transfer from polyacrylamide gels.

These kits for membrane staining use a nondestructive, reversible, reliable, and sensitive method to stain and detect proteins on nitrocellulose and PVDF membranes. The lower limit of detection with this method is 25 to 50 ng per band (at least five times more sensitive than traditional Ponceau S staining). The staining protocols are simple, quick, and result in turquoise-blue bands that do not fade and are easily photographed for future reference. Kits include:

- Pierce™ Reversible Protein Stain Kit for Nitrocellulose Membranes
- Pierce™ Reversible Protein Stain Kit for PVDF Membranes

# Detect

The last step in the western workflow is detection. In this step, primary antibodies specific to the protein of interest bind the protein on the membrane. Secondary antibodies conjugated to horseradish peroxidase (HRP) or alkaline phosphatase (AP) are then added and bind to the primary antibody to allow for visualization of the protein bound to the membrane. We offer more than 40,000 Life Technologies™ and Pierce™ primary and secondary antibodies, along with buffers and substrates for use in western blot analysis. In addition, the revolutionary iBind™ Western System provides hands-free convenience for primary and secondary antibody binding as well as all wash steps. We also offer the myECL® Imager for one-touch image capture of western blots.

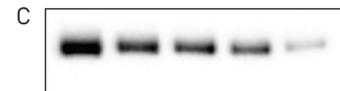
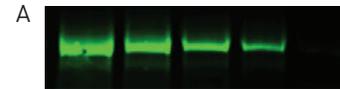
## Less antibody. Automated convenience. Superior results.

The iBind™ Western System is an automated western blot processing platform that requires less primary antibody and enables sensitive, reproducible western results. All blocking, antibody incubation, and washing steps are hands-free, allowing you to load your solutions and walk away. There is no electricity or battery required.

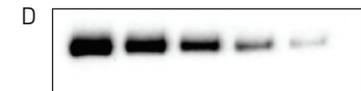
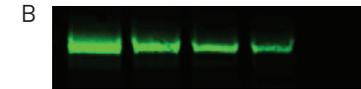
- **Cost savings**—use less primary antibody
- **Superior sensitivity**—detect proteins at lower levels than manually processed blots
- **Reproducibility**—automated processing enables improved blot-to-blot consistency



### Phospho-pEGFR



Manual processing

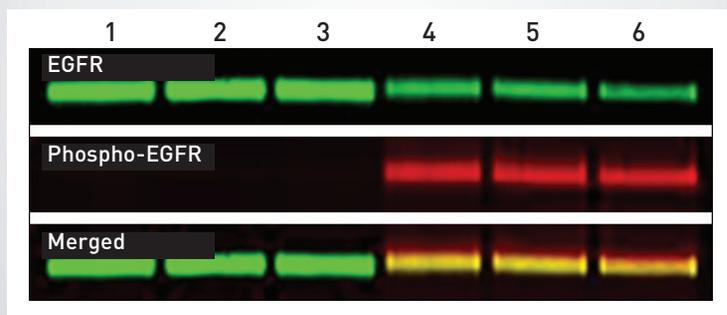


iBind™ Western Device process with 80% less primary antibody than manual method

**The iBind™ Western System enables superior western blot results with less primary antibody.** Proteins in A431 cell extract were separated using the Mini Gel Tank Electrophoresis System and transferred to PVDF or NC membranes using the iBlot® 2 Dry Blotting System. The blots were probed with a phospho-EGF receptor (Tyr1068) (1H12) mouse monoclonal antibody (1:1,000 dilution, equated to 2  $\mu$ L antibody for the iBind™ device method and 10  $\mu$ L antibody for the manual method), followed by goat anti-mouse IgG (H+L) peroxidase-conjugated antibody (1:360 for iBind™ device processing (5.55  $\mu$ L); 1:1,800 for the manual method (5.55  $\mu$ L), panels C and D). Goat anti-mouse IRDye® 800CW conjugate (1:3,000 for iBind™ device processing; 1:15,000 for manual method) was used as secondary antibody in panels A and B.

## Multicolor western analysis

Multicolor western analysis with fluorescent dye or Molecular Probes® Qdot® nanocrystal conjugates enables the simultaneous evaluation and comparison of multiple proteins on the same blot, even if the proteins co-migrate. Multiplexing also helps you save time because it allows easy normalization and requires no blot stripping or single-blot comparisons, and no additional antibody incubation steps. Alexa Fluor® 680 and 790 along with WesternDot® 585, 625, 655, and 800 conjugated secondary antibodies are ideal for fast and accurate multicolor western detection.



## Get the right antibodies for western detection

The right antibodies are essential for clean, definitive, and reproducible western blot results. We offer more than 40,000 highly specific and sensitive Life Technologies™ and Pierce™ primary and secondary antibodies to help you gather quality western data. All of our antibodies are validated to perform in the stated application and species. HRP- and AP-conjugated secondary antibodies are also available in various degrees of purity to meet all your western analysis needs.

- Specific to the target protein or antibody
- Sensitive to give you the level of detection you need
- Reliable to help you get great data every time
- Affordable to help you get the most out of your research dollar
- Validated to perform in the stated application and species



## Choose the appropriate chemiluminescent substrate for western blot detection

As with other components in a western blotting system, there are many chemiluminescent substrate choices available. The appropriate substrate selection depends on the detection level (sensitivity) required, target protein abundance, and sample availability.

Chemiluminescent substrates offer:

- **Excellent sensitivity**—five substrates providing picogram to femtogram sensitivity
- **Strong light emission**—longer signal duration allows for multiple exposures
- **High intensity**—signal is twice as intense as other luminescence-based systems
- **Antibody savings**—our substrates are optimized to work with more dilute primary and secondary antibodies



We offer five types of chemiluminescent substrates for western blot detection with HRP:

	Thermo Scientific™ Pierce™ ECL Substrate	Thermo Scientific™ SuperSignal™ West Pico Substrate	Thermo Scientific™ Pierce™ ECL 2 Substrate	Thermo Scientific™ SuperSignal™ West Dura Substrate	Thermo Scientific™ SuperSignal™ West Femto Substrate
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<b>Advantage</b>	Same signal, lower price than other entry-level ECL substrates	Better signal, lower price than competing ECL substrates	Same signal and lower price than competing ECL Plus substrates	Best for use with imaging equipment	Most sensitive substrate for HRP detection
<b>Detection Level</b>	~20 picograms	~1 picogram	~0.5 picogram	~250 femtograms	~60 femtograms
<b>Signal Duration</b>	30 minutes–2 hours	6–8 hours	5 hours	24 hours	8 hours
<b>Select when ...</b>	Target is abundant, sample is abundant, and for everyday use	Target is less abundant, sample is limited, and for more sensitivity than an entry-level ECL substrate	Target is less abundant, sample is limited, and for chemifluorescent detection	Target is less abundant, sample is limited, and for CCD image capture	Target is least abundant, sample is precious, and for maximum sensitivity

## Western blot reagents

We offer a wide range of ready-to-use western blotting reagents, including blocking buffers, wash buffers, detergents, membrane-stripping buffers, and western blot enhancers. Our blocking buffers include traditional protein blocking agents, such as BSA, casein, and milk, as well as exclusive Pierce™ blocking buffers, such as SuperBlock™ and StartingBlock™ protein-free blocking buffers, for efficient blocking in western blotting and other immunoassay detection methods. Our wash buffers include pouches of pre-blended powder mixtures of commonly used buffers, such as PBS and TBS for western blotting; just add water to dissolve and they are ready to use.

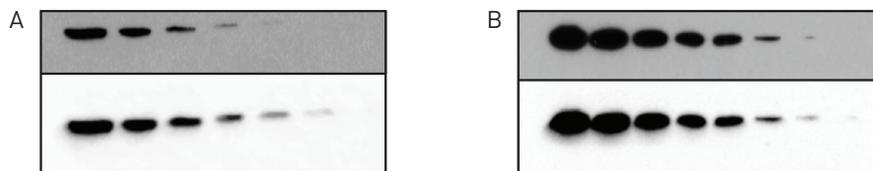
Our specially formulated membrane-stripping buffers are designed to dissociate and strip primary and secondary antibodies from western blots, so that membranes can be re-probed under alternate conditions or with another antibody to detect a different protein target. We offer nitrocellulose and PVDF transfer membranes available in rolls and as pre-cut sheets, and X-ray film for chemiluminescence and other western blot detection techniques. Achieve 3- to 10-fold increased sensitivity using our SuperSignal™ Western Blot Enhancer Kit when compared to detection performed without it.

## Capture and analyze your image— one-touch western blot and gel imaging at your fingertips

The powerful and easy-to-use myECL<sup>®</sup> Imager delivers a complete set of high-sensitivity western blot and gel documentation tools through a streamlined and intuitive touchscreen interface, convenient acquisition options, and analysis software supplied with the instrument. The myECL<sup>®</sup> Imager incorporates advanced CCD technology that results in greater than two times the sensitivity of X-ray film and 10 times the dynamic range. The imager can be used in chemiluminescence, ultraviolet, and visible modes to image western blots, stained nucleic acid gels, or stained protein gels.

The myECL<sup>®</sup> Imager provides:

- One-touch image acquisition
- Multi-exposures, with up to five different preset or user-defined exposure times
- Automatic visible image capture with every chemiluminescent image exposure
- Live camera setting to view the illuminated platform in any mode
- Interactive Chemi, which automatically calculates the optimal exposure time of a western blot



**Sensitivity comparison between CCD imaging and X-ray film.** Western blot images of 2-fold serially diluted HeLa lysate probed with anti-PLK1 (**A**) and anti-Cyclophilin B (**B**) are shown. Blots were incubated with SuperSignal<sup>™</sup> West Dura Substrate and exposed for 10 seconds to film and the myECL<sup>®</sup> Imager (3 × 3 binning).

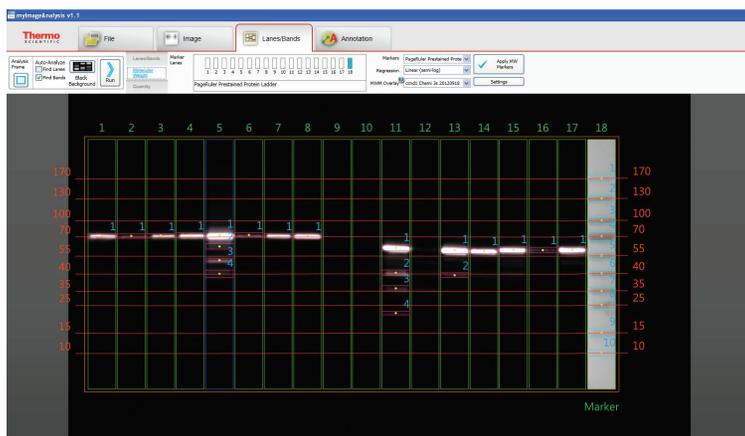
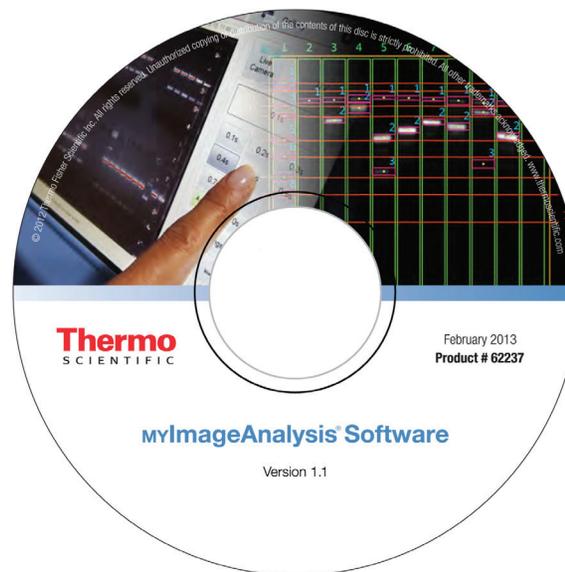


## myImageAnalysis® Software

Thermo Scientific™ myImageAnalysis® Software v2.0 is a full-featured, multifunction computer program designed to analyze and edit digital images of electrophoresis gels and blots acquired using gel documentation imagers or scanners.

myImageAnalysis® Software v2.0 offers:

- **Annotation-compatible file types**—load images in popular file formats (TIFF, JPEG, PNG, etc.)
- **Auto-identification**—enables accurate, customizable, automatic lane and band identification to create numbered, selectable objects for lane profile densitometry and analysis
- **Image refinement and annotation**—crop, rotate, invert, display saturation, and adjust contrast; then add simple labels, notes, and arrows
- **Exporting and sharing**—easily transfer data and images to Microsoft® Excel®, Word®, and PowerPoint® programs for further analysis and presentation



**Automate colorimetric molecular weight overlay.** Proprietary program eliminates the painful manual process to overlay molecular weight markers on western blots.

## Ordering information

Product	Quantity	Cat. No.
<b>Separate</b>		
Mini Gel Tank	1 unit	A25977
Bolt® Welcome Pack, 10-well	1 kit	NW0412A
Bolt® Welcome Pack, 15-well	1 kit	NW0412B
MagicMark™ XP Protein Standard	Varies	Varies
NativeMark™ Unstained Protein Standard	5 x 50 µL	LC0725
PageRuler™ Unstained Low Range Protein Ladder	2 x 250 µL	PI26632
PageRuler™ Unstained Protein Ladder	2 x 250 µL	PI26614
PageRuler™ Prestained Protein Ladder	Varies	PI26616
PageRuler™ Plus Prestained Protein Ladder	Varies	PI26619
Spectra™ Multicolor Broad Range Protein Ladder	Varies	PI26634
Spectra™ Multicolor High Range Protein Ladder	2 x 250 µL	PI26625
HiMark™ Pre-stained Protein Standard	250 µL	LC5699
Bolt® Bis-Tris Plus Precast Gels	Varies	Varies
XCell4 SureLock™ Midi-Cell	1 each	WR0100
NuPAGE® Bis-Tris Precast Gels	Varies	Varies
NuPAGE® Tris-Acetate Precast Gels	Varies	Varies
Novex® Tris-Glycine Precast Gels	Varies	Varies
PowerEase® 90W Power Supply (115 VAC)	1 each	PS0090
PowerEase® 300W Power Supply (115 VAC)	1 each	PS0300
<b>Separate and transfer</b>		
Bolt® Welcome Pack with iBlot® 2 Dry Blotting System	1 kit	NW0412AIB2
Mini Gel Tank and Blot Module Set	1 kit	NW2000
<b>Transfer</b>		
iBlot® 2 Gel Transfer Device	1 device	IB21001

Product	Quantity	Cat. No.
Mini Blot Module	1 unit	B1000
Novex® Semi-Dry Blotter	1 each	SD1000
iBlot® 2 Transfer Stacks, Nitrocellulose, Regular	10 stacks	IB23001
iBlot® 2 Transfer Stacks, Nitrocellulose, Mini	10 stacks	IB23002
iBlot® 2 Transfer Stacks, PVDF, Regular	10 stacks	IB24001
iBlot® 2 Transfer Stacks, PVDF, Mini	10 stacks	IB24002
Pierce™ Midi Gel Power Staining Kit	30 pads	PL22839
Pierce™ Mini Gel Power Staining Kit	60 pads	PL22840
PageBlue™ Protein Stain	1 L	PL24620
SimplyBlue™ SafeStain	Varies	Varies
Imperial™ Protein Stain	Varies	Varies
Pierce™ Silver Stain	1 L kit	PL24612
SilverXpress® Silver Stain	1 kit	LC6100
Pierce™ Silver Stain for MS	1 L kit	PL24600
Pierce™ Reversible Protein Stain for NC/PVDF Membranes	Varies	Varies
SYPRO® Orange/Red/Ruby Protein Gel Stains	Varies	Varies
Pierce™ Power System	1 device	PL22830
<b>Detect</b>		
iBind™ Western Starter Kit	1 kit	SLF1000S
iBind™ Western Device	1 device	SLF1000
iBind™ Cards	10 cards	SLF1010
iBind™ Solution Kit	1 kit	SLF1020
Primary antibodies	Over 40,000	Varies
Secondary antibodies for western blot analysis	Over 1,000	Varies
Pierce™ ECL Substrate	500 mL	PL32106
Pierce™ ECL 2 Substrate	100 mL	PL80196
SuperSignal™ West Pico Chemiluminescent Substrate	500 mL	PL34080
SuperSignal™ West Dura Extended Duration Substrate	200 mL	PL34076
SuperSignal™ West Femto Maximum Sensitivity Substrate	200 mL	PL34096
myECL® Imager	1 unit	62236

Find out more at [lifetechnologies.com/western](http://lifetechnologies.com/western)



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