



The iWestern workflow

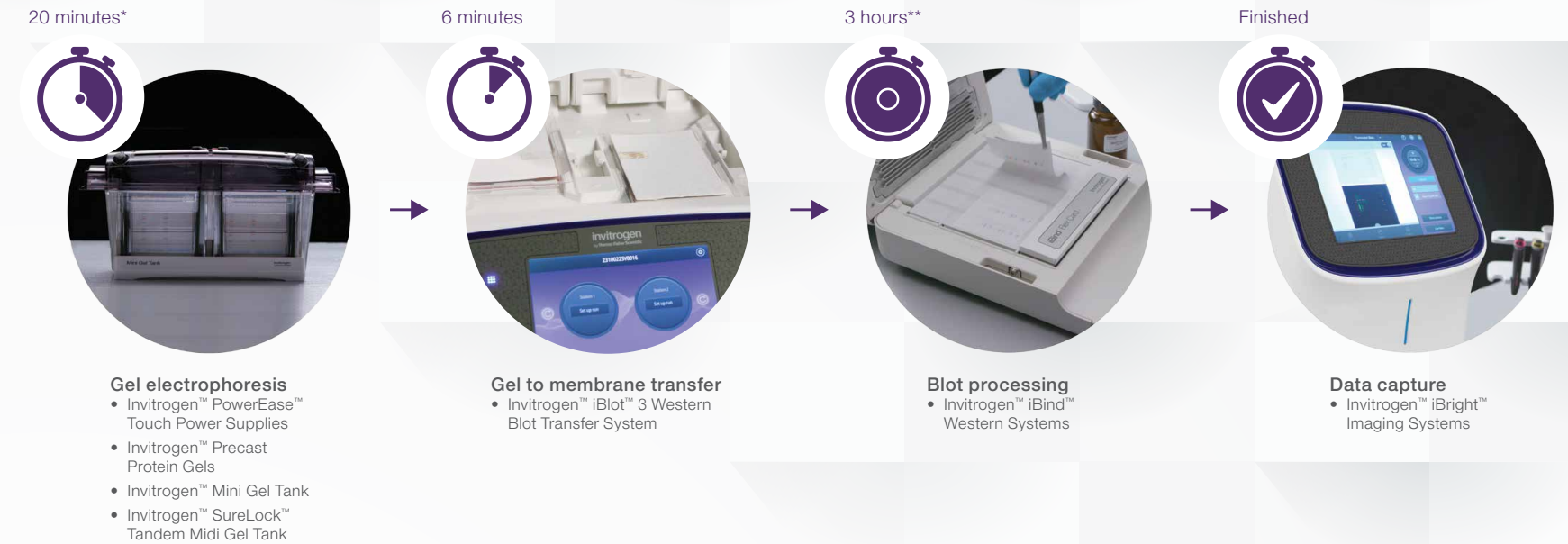
A modern start-to-finish western blotting solution

invitrogen

Streamline your western blotting workflow

The Invitrogen™ iWestern™ workflow features innovative, modern solutions designed to address processing efficiency, reproducibility, and robustness of results—because your time is precious.

Together, these products help you achieve exceptional western blotting results with minimal hands-on time.



Western blotting step	iWestern workflow	Manual workflow
Sample prep and electrophoresis	50 min	50 min
Transfer	6 min	60 min
Blocking		60 min
Primary antibody incubation		720 min
Washes	180 min**	30 min
Secondary antibody incubation		60 min
Washes		30 min
Substrate incubation	5 min	5 min
Exposure time/data capture	8 sec	8 sec
Total time	~241 min (approx. 4 hr)	~ 1,015 min (approx. 17 hr)

Achieve comparable results to traditional western blotting, in a fraction of the time

Serial dilutions of A431 lysate were loaded onto Invitrogen™ Novex™ WedgeWell™ 4–20% Tris-glycine 12-well gels (starting at 10 µg and then 1:1 serially diluted to 0.02 µg) followed by performing western blotting using the iWestern workflow products (left column) or a classical manual approach (right column). The iWestern workflow products leveraged include a PowerEase Touch Power Supply, Mini Gel Tank, iBlot 3 Western Transfer Device, iBind Western System, and iBright FL1500 Imaging System. The classical, manual workflow used wet tank transfer, a shaker and tray for immunodetection, manual loading and changing of reagents and antibodies, and the Invitrogen™ iBright™ FL1500 Imaging System for data capture. The times indicated in the table correspond to the approximate time investment of each step without factoring in the additional preparation or processing time between steps, which can vary from experiment to experiment.

* 20-minute electrophoresis time is achievable with Invitrogen™ Bolt™ gel chemistry. Electrophoresis run time will vary based upon gel chemistry selected and desired migration of protein bands.

** The 180-minute time factors in the preparation of the iBind system with iBind card and necessary solutions.

PowerEase Touch power supplies

Powerful and versatile

The Invitrogen™ PowerEase™ Touch family of power supplies features large, bright LCD touchscreens that are easy to operate and program. PowerEase Touch power supplies are engineered to deliver precise outputs for voltage, current, and power for gel electrophoresis and western transfer applications. The user-friendly interface allows for quick access to preprogrammed protocols for optimal SDS-PAGE, native-PAGE, IEF, IPG strips, and transfer of Invitrogen™ gels. Adding and saving up to 100 custom run methods is quick and intuitive. Use the table below to choose the power supply that works best for your application.

Model	Mini gel runs	Mini gel transfers	Midi gel runs	Midi gel transfers	IEF gels	IPG strips
PowerEase Touch 120W Power Supply	4	2	2	No	No	No
PowerEase Touch 350W Power Supply	12	8	8	4	No	No
PowerEase Touch 600W Power Supply	16	8	14	4	8	No
PowerEase Touch HV Power Supply	4	2	2	No	8	48



Explore our power supplies at [thermofisher.com/powersupplies](https://www.thermofisher.com/powersupplies)

Bolt precast protein gels

Speed and high throughput without compromise

Invitrogen™ Bolt™ precast gels combine the high performance of the Invitrogen™ Bis-Tris gel chemistry with fast run times. Obtaining straight, well-resolved protein bands takes only 20 minutes. The neutral pH of the buffering system minimizes in-gel protein degradation, helping preserve protein integrity and improving downstream protein detection. The wedge-shaped wells support easy loading of up to 60 µL of sample, helping reduce the need for time-consuming sample concentration steps.

For higher-throughput experiments, Invitrogen™ Bis-Tris precast midi gels expand your sample analysis capabilities with an array of well formats, including a 26-well option.



Mini gels



Midi gels

Learn more about Bolt gel chemistry at [thermofisher.com/bolt](https://www.thermofisher.com/bolt)

Mini Gel Tank

Streamlined protein separation through creative tank design

With an intelligently engineered side-by-side design, the Invitrogen™ Mini Gel Tank provides a forward-facing well configuration for easier sample loading and the simultaneous visualization of both gels. The white tank stand provides contrast to help improve the monitoring of prestained markers during electrophoresis. Compatible with over 180 gels of different formats and gel chemistries, the Mini Gel Tank can help provide you with the flexibility to choose the right gel for the job.



SureLock Tandem Midi Gel Tank

Maximize throughput

Compatible with all Invitrogen™ precast midi gels, the Invitrogen™ SureLock™ Tandem Midi Gel Tank is designed for easy and consistent vertical protein gel electrophoresis. Two separate gel chambers offer the flexibility to run one or two midi gels, and to separate up to 52 samples in the same run. When paired with the Invitrogen™ SureLock™ Midi Transfer Module, this tank performs efficient room-temperature, wet protein transfer in 30 minutes. Made of durable polycarbonate, the SureLock Tandem Midi Gel Tank is built to last.



See more about our tanks at [thermofisher.com/electrophoresischambers](https://www.thermofisher.com/electrophoresischambers)

iBlot 3 western blot transfer system

The next generation of protein transfer performance and convenience

The Invitrogen™ iBlot™ 3 western blot transfer system is a next-generation dry protein transfer device with ready-to-use consumables that can deliver high performance and convenience.

Perform reliable, high-quality transfers fast—in as few as three minutes.

In addition, two independently controlled transfer stations allow you to share the device with your coworker, simultaneously running a total of four mini gels or two midi gels with two different programs.

With the iBlot 3 system, you can achieve as good or better protein transfer efficiency compared to wet tank transfer and other rapid transfer methods. The preassembled single-use consumables and ultrafast transfer methods help eliminate variability—enabling consistent and repeatable results.

In addition, the robust design has built-in cooling to reduce heat buildup and facilitate run-to-run consistency.



See performance data and more at [thermofisher.com/iblot3](https://www.thermofisher.com/iblot3)

iBind western systems

Revolutionary western blot processing—no shakers, trays, or timers required

Two devices and one simple technology for western blot processing. The Invitrogen™ iBind™ and iBind™ Flex Western Devices are simple, unpowered devices that automate many of the tedious, routine western blot processing steps.

The original iBind device accommodates the processing of one mini blot at a time, while the iBind Flex device accommodates the processing of one midi blot, two mini blots, or up to six vertically cut strips. The entire immunoblotting process can be completed in less than 3 hours and because processing is automated, blot-to-blot consistency can be improved.



See one in action at [thermofisher.com/ibind](https://www.thermofisher.com/ibind)

iBright Imaging Systems

Stunningly easy western blot and gel imaging

iBright Imaging Systems make it easy to capture images by streamlining the image capture process. Automatic zoom, focus, sample rotation*, and Smart Exposure™ auto-exposure technology take the guesswork out of achieving an optimal image. Help maximize the dynamic range of chemiluminescent western blot data by leveraging Smart Range™ high dynamic range (HDR) technology.

All models have a large functional imaging area that enables the simultaneous capture and analysis of up to two midi or four mini blots in a single image. Perform molecular weight marker overlays, densitometry analysis, and normalization on-instrument or with stand-alone Invitrogen™ iBright™ Analysis Software, available in both desktop and cloud-based formats.

The flagship model, the iBright FL1500 Imaging System, features five fluorescence channels, permitting up to four-color fluorescent western blot multiplexing—expanding your possibilities for studying multiple proteins in a single blot without the need to strip and reprobe.



**iBright CL750
Imaging System**

Essential western blot and gel imaging functions to efficiently transition from the darkroom and film to the bench



**iBright CL1500
Imaging System**

Expanded application support with many of the same high-performance specifications as the premier iBright FL1500 model



**iBright FL1500
Imaging System**

Maximum application support, including fluorescent western blot imaging with up to four fluorescence channels at a time

* **Note:** Sample rotation is only available with the iBright CL1500 and FL1500 systems.

Watch videos, review application notes, and more at thermofisher.com/ibright

Whether you are leveraging a modern or a classical approach to western blotting, we offer efficient solutions across the workflow

Sample preparation



Protein assays



Lysis buffers



Inhibitors

iWestern workflow—
modernized
western blotting



Tanks and high-performance
precast gels



iBlot 3 system and
ready-to-use consumables

Electrophoresis

Transfer

Pour-your-own gel systems and reagents
Prestained ladders
Stains



Wet transfer apparatuses
and membranes





[iBind Western Devices](#)



[iBright Imaging Systems](#)

Immunodetection

[Blocking buffers](#)

[Antibodies](#)

[Substrates](#)

[Stripping buffers](#)



Detection and analysis

[iBright Imaging Systems](#)



Don't forget about your detection reagents—check out our top picks

SuperSignal substrates

Find the right high-performance Thermo Scientific™ SuperSignal™ chemiluminescent substrate based on the required sensitivity, target protein abundance, and sample availability.

Learn more at

thermofisher.com/supersignal



AlexaFluor Plus secondary antibodies

Achieve great sensitivity compared to traditional conjugates—explore our range of Invitrogen™ AlexaFluor™ Plus secondary antibodies.

Learn more at

thermofisher.com/alexafluorplus

Modernize your western blot workflow today with the iWestern workflow bundle

Our standard iWestern bundle contains the core innovative iWestern workflow devices, including the necessary consumables and reagents (not pictured), to get started:

- PowerEase Touch 600W Power Supply
- Bolt gel welcome pack (includes a Mini Gel Tank)
- iBlot 3 Starter Kit
- iBind Flex Western Starter Kit
- iBright FL1500 Imaging System



Explore more, customize a bundle, and get a quote at thermofisher.com/iwestern

invitrogen