

SIMPLIFY. AUTOMATE. ADVANCE.

EVOLVE YOUR PROTEIN ANALYSIS WITH SIMPLE WESTERN.



biotechne®



MOVE BEYOND TRADITIONAL WESTERNS

Protein analysis comes with many challenges—labor-intensive protocols increase time to result and multiple hands-on steps increase user error and data variability. At best, you end up with semi-quantitative results when what you really need, and deserve, is highly reproducible immunoassay quantitation. Discover more and solve your protein analysis problems with Simple Western™.

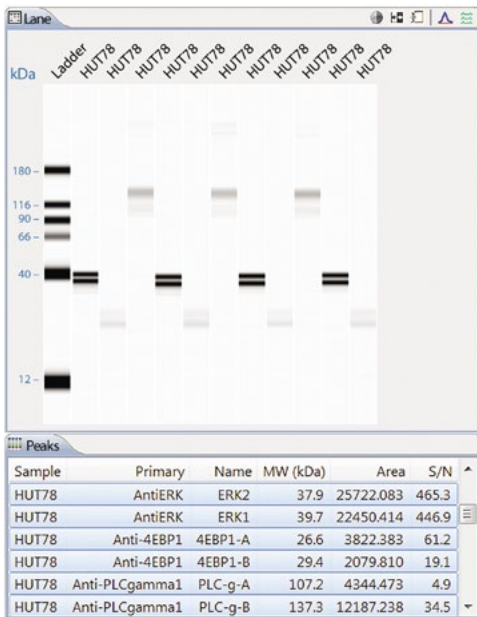
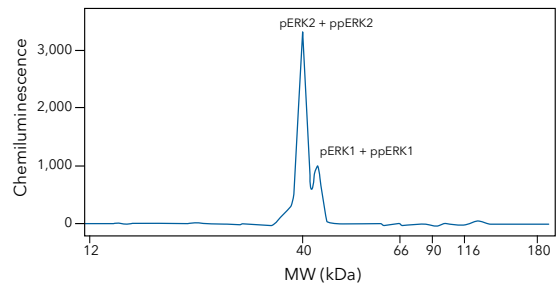
MEET SIMPLE WESTERN

- Identify whether a protein is present or absent
- Quantitate protein expression changes
- Identify and analyze phosphorylated isoforms
- Characterize post-translational modifications
- Normalize target expression to protein load
- Delve deeper into isoform analysis with charge separation

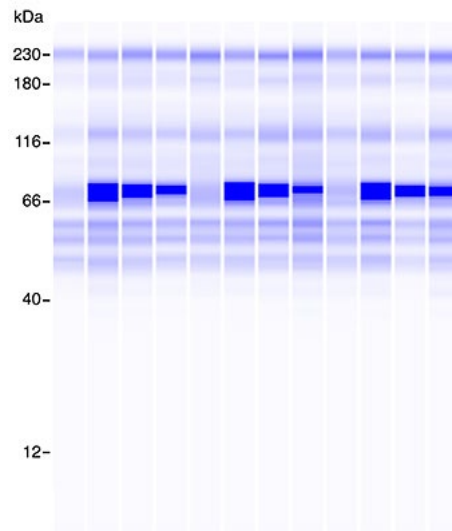
WHAT DOES THE DATA LOOK LIKE?

Simple Western size-based assay data is processed automatically in Compass for you. Sample data is displayed by lane in a virtual-blot like image similar to traditional results with one big exception—not only do you get more information, you get it as soon as the assay is complete. Quantitative results such as molecular weight, signal intensity (area), % area, and signal-to-noise for each immunodetected protein are presented in the results table automatically.

If you're more familiar with capillary electrophoresis, you can see your results in a more traditional electropherogram view too.

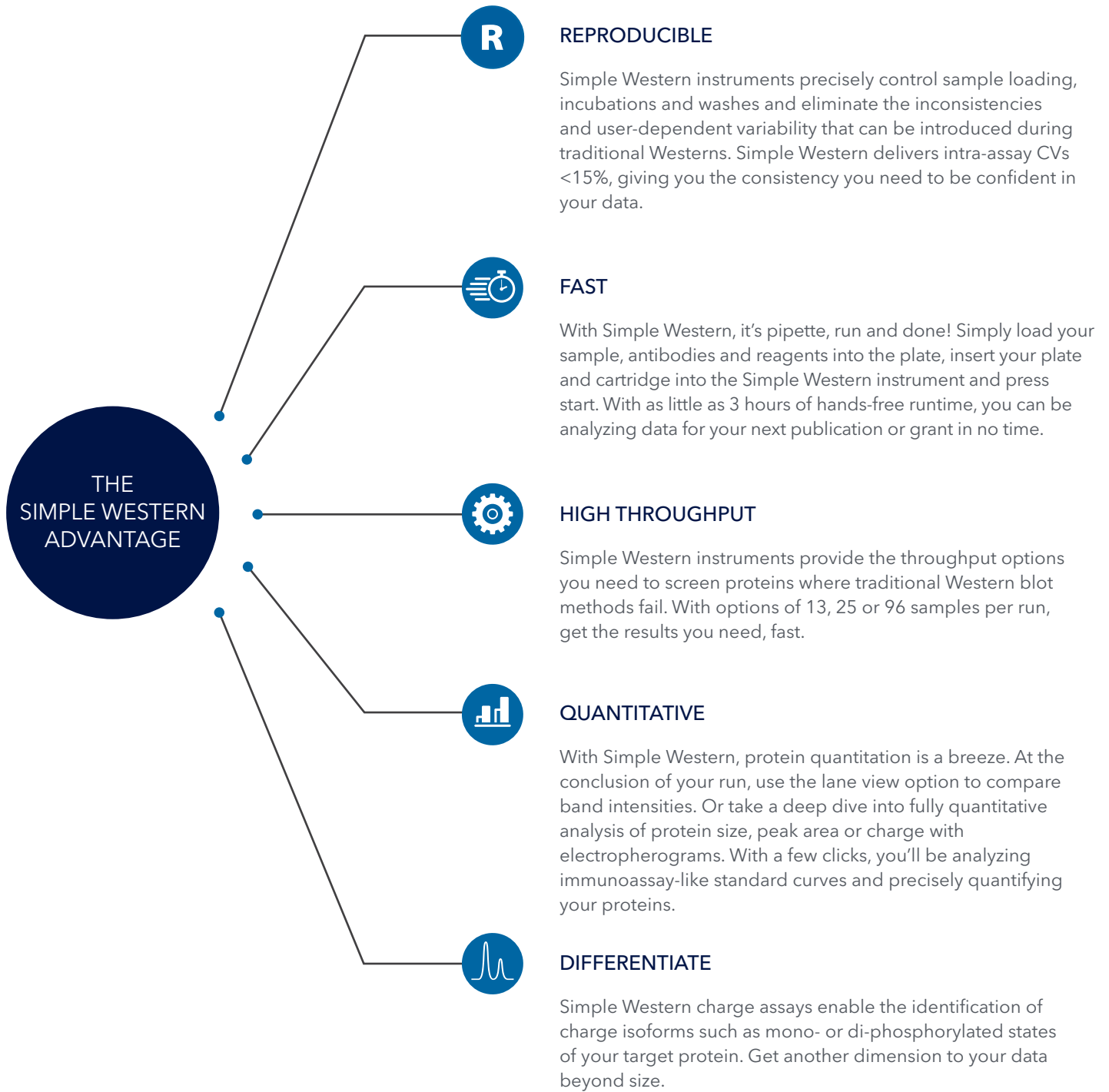


Just need total protein? We've got that covered too!



Total Protein detection. Decreasing concentrations of DNAK in Hela lysate and negative controls (15, 7.5 and 3.75 µg/mL).

HOW CAN SIMPLE WESTERN HELP YOU?

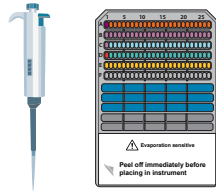


HOW SIMPLE WESTERN WORKS

IT'S PIPETTE, RUN & DONE! SIMPLE WESTERN DOES THE REST.

1 PREPARE YOUR REAGENTS

Reagent prep with Simple Western isn't complicated. Pipette, mix, spin... soon you'll be a protocol prodigy.



2 LOAD THE PLATE

After preparing the reagents, simply load the reagents and samples into a Simple Western plate.

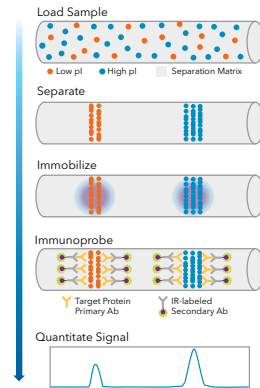
3 START THE RUN

Place the plate and a capillary cartridge into the Simple Western instrument and use Compass software to start a run. Walk away now and take back your lost time.

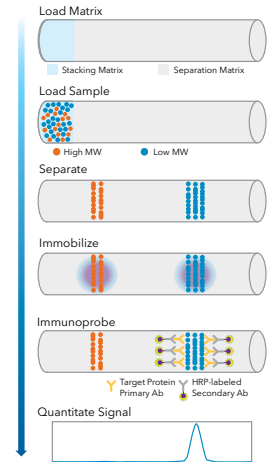
4 SIMPLE WESTERN DOES THE REST

Simple Western does protein analysis through separation and immunoprobings in a capillary system. Each step of the process is precisely controlled, ensuring the highest quality results. Come back to fully analyzed, quantitative results.

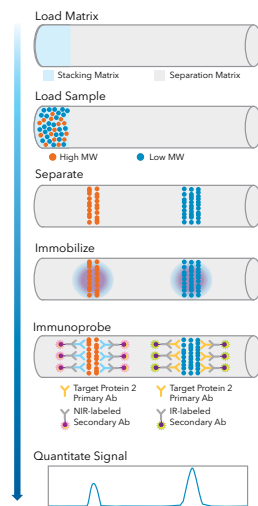
CHARGE-BASED ASSAY: CHEMILUMINESCENT DETECTION



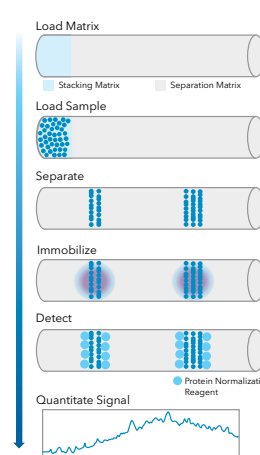
SIZED-BASED ASSAY: CHEMILUMINESCENT DETECTION



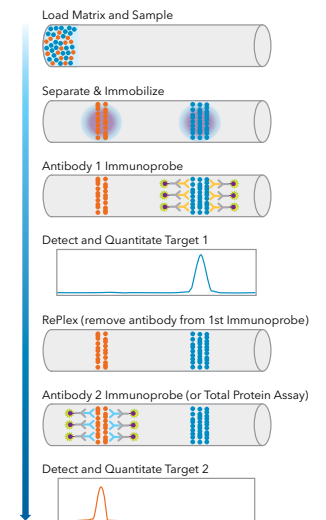
SIZED-BASED ASSAY: FLUORESCENT DETECTION



SIZED-BASED ASSAY: FLUORESCENT PROTEIN NORMALIZATION



REPLEX™ WITH JESST™ AND ABBY™



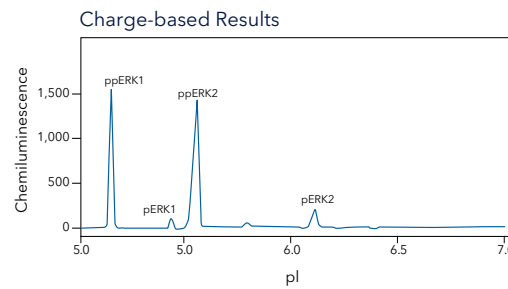
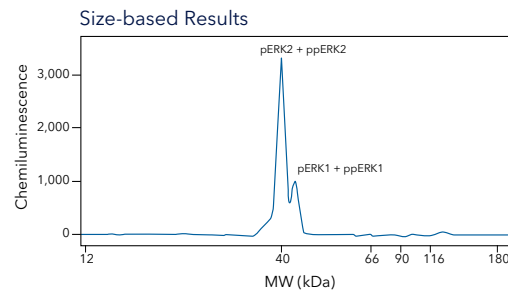
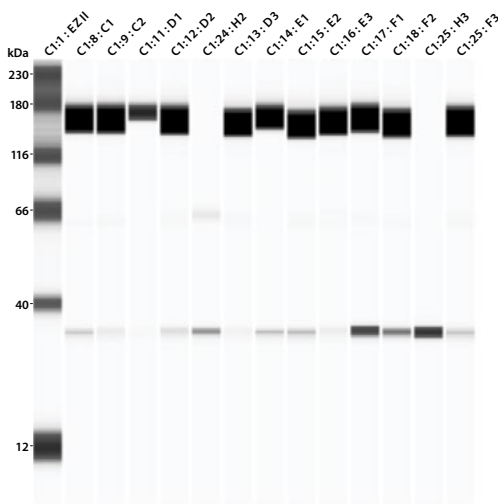
STOP, ANALYZE AND WOW!

At the end of your run, you'll have multiple options for data viewing. For size-based runs, use the lane view option to compare band intensity like in traditional Western blotting or view the electropherogram of the protein separation by size and intensity. Easily turn these qualitative views into fully quantitative tables or standard curves to dive deeper into quantitative analysis, allowing you to compare protein expression changes and analyze protein isoforms or size changes.

With **Peggy Sue™** and **NanoPro 1000™**, distinguish phosphorylation changes in proteins using the cIEF separation. View your results in electropherogram format and take your analysis further by examining the signal intensities across the isoelectric point (pI) range.

Want to analyze expression changes between samples or compare runs? Our Protein Normalization kit will give you the confidence you need in your analysis.

Use **RePlex™** with **Jess™** and **Abby™** to quantify expressed phosphorylated target and total target levels. Run two immunoassays within the same capillary to get all your rich protein characterization data from just one sample!



Sample	Primary	Cap	Peak	Position	MW (kDa)	Height	Area	Width	S/N	Baseline
C1	anti-G...	C1:8	1	430	34	1844.8	17439	8.9	94.1	178.1
C1	anti-G...	C1:8	2	601	159	45597.5	537092	11.1	2331.9	255.7
C2	anti-G...	C1:9	1	430	34	1119.1	13081	11.0	87.8	186.4
C2	anti-G...	C1:9	2	519	63	531.1	7662	13.6	34.5	219.0
C2	anti-G...	C1:8	3	601	159	57978.6	653486	10.6	4672.4	281.1

SIMPLE WESTERN: PICK YOUR PERFECT MATCH



JESS™

- Size-based protein analysis
- 13 or 25 samples per run
- Fully analyzed results in 3 hours of run time
- Chemiluminescence
- RePlex assay
- Total protein normalization
- Stellar High Sensitivity NIR/IR
- Western blot imaging



ABBY™

- Size-based protein analysis
- 13 or 25 samples per run
- Fully analyzed results in 3 hours of run time
- Chemiluminescence
- RePlex assay
- Total protein normalization



WES™

- Size-based protein analysis
- 13 or 25 samples per run
- Fully analyzed results in 3 hours of run time
- Chemiluminescence detection



SALLY SUE™

- Size-based analysis
- 96 samples per run
- Fully analyzed results in 14-19 hours of run time
- Chemiluminescence detection



NANOPRO 1000™

- Charge-based analysis
- 96 samples per run
- Fully analyzed results in 11-19 hours of run time
- Chemiluminescence detection



PEGGY SUE™

- Size-based protein analysis
- Charge-based protein analysis
- 96 samples per run
- Fully analyzed results in 11-19 hours of run time
- Chemiluminescence detection

SPECIFICATIONS

SYSTEM	JESS™ ABBY™ WES™	SALLY SUE™	PEGGY SUE™	NANOPRO 1000
Simple Western size assays	•	•	•	
Simple Western charge assays			•	•
Max samples per run	25	96	96	96
Runtime for max samples	<3 hours RePlex™ with Jess™ and Abby™ <5 hours	14-19 hours	11-19 hours	11-19 hours
Sample cooling (size)	N/A	10 °C	10 °C	N/A
Sample cooling (charge)	N/A	N/A	3 °C	3 °C
Part number	004-650 004-680 004-600	004-700	004-800	004-109

DESCRIPTION	IMMUNOASSAY SIZE SPECIFICATION		IMMUNOASSAY CHARGE SPECIFICATION
	CHEMILUMINESCENCE	FLUORESCENCE	
Sample required	0.6-1.2 µg	2-4 µg	0.6-1.2 µg
Volume required	3 µL/well	3 µL/well	5-12 µL/well
Size range	Molecular weight (MW) ladders range from 2-440 kDa	Molecular weight (MW) ladders range from 2-440 kDa	Widest gradient ranges from pI 3 to pI 10
Sizing CV	<10%	<10%	<10%
Intra-assay CV	<15%	<15%	<20%
Inter-assay CV	<20%*	<20%*	<20%**
Resolution (± percent difference in MW)	± 15-20% for MW <20 kDa± 10%	± 15-20% for MW <20 kDa± 10%	± 1 pI units
Quantitation CV	<20%	<20%	<20%
Dynamic range	Up to 4 logs†	Up to 4 logs	3 logs
Sensitivity	Low pg	Low pg	Low pg

* Inter-assay CV is with system control

** Percent peak area

† Wes with HDR detection profile.



RUN TIME	3 HOURS		14 HOURS	14 HRS (SIZE) 11 HRS (CHARGE)	11 HOURS
SAMPLES	12-24		12-96		
SEPARATION	SIZE		SIZE	SIZE OR CHARGE	CHARGE
DETECTION	CHEMILUMINESCENCE FLUORESCENCE	CHEMILUMINESCENCE	CHEMILUMINESCENCE		
RePlex™ (Strip & ReProbe Replacement)	YES		NO		
OTHER CAPABILITIES	BLOT IMAGING				

WHERE SCIENCE INTERSECTS INNOVATION™

At ProteinSimple, we're changing the way scientists analyze proteins. Our innovative product portfolio helps researchers reveal new insight into proteins, advancing their understanding of protein function. We enable cutting-edge research to uncover the role of proteins in disease and provide novel approaches to develop and analyze protein-based therapeutics. We empower you to make your next discovery by eliminating common protein analysis workflow challenges.

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