

Simplify. Automate. Advance.

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.



**Evolve Your Protein Analysis
with Simple Western.**



Toll-free: (888) 607-9692
Tel: (408) 510-5500
info@proteinsimple.com
proteinsimple.com

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PL6-0006 RevA

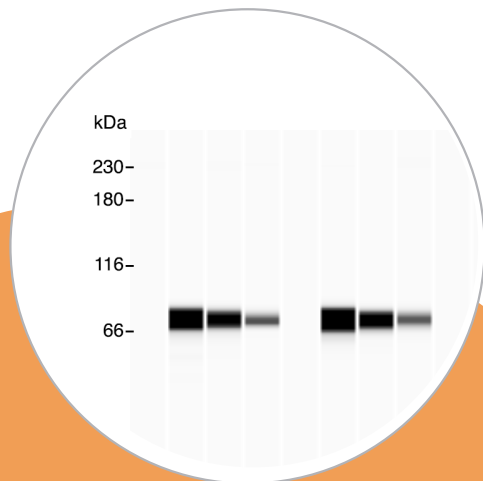


Meet Simple Western

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 Western blot-like, 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.

Move Beyond Traditional Westerns

- 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



How Can Simple Western Help You?



REPRODUCIBLE

Simple Western instruments precisely control sample loading, incubations and washes and eliminate the inconsistencies and user-dependent variability that can be introduced during traditional Westerns. Simple Western delivers intra-assay CVs <15%, giving you the consistency you need to be confident in your data.



HIGH THROUGHPUT

Simple Western instruments provide the throughput options you need to screen proteins where traditional Western blot methods fail. With options of 13, 25 or 96 samples per run, get the results you need, fast.



FAST

With Simple Western, it's pipette, run and done! Simply load your sample, antibodies and reagents into the plate, insert your plate and cartridge into the Simple Western instrument and press start. With as little as 3 hours of hands-free runtime, you can be analyzing data for your next publication or grant in no time.



QUANTITATIVE

With Simple Western, protein quantitation is a breeze. At the conclusion of your run, use the lane view option to compare band intensities. Or take a deep dive into fully quantitative analysis of protein size, concentration or charge with electropherograms. With a few clicks, you'll be analyzing immunoassay-like standard curves and precisely quantifying your proteins.



DIFFERENTIATE

Simple Western charge assays enable the identification of charge isoforms such as mono- or di-phosphorylated states of your target protein. Get another dimension to your data beyond size.

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

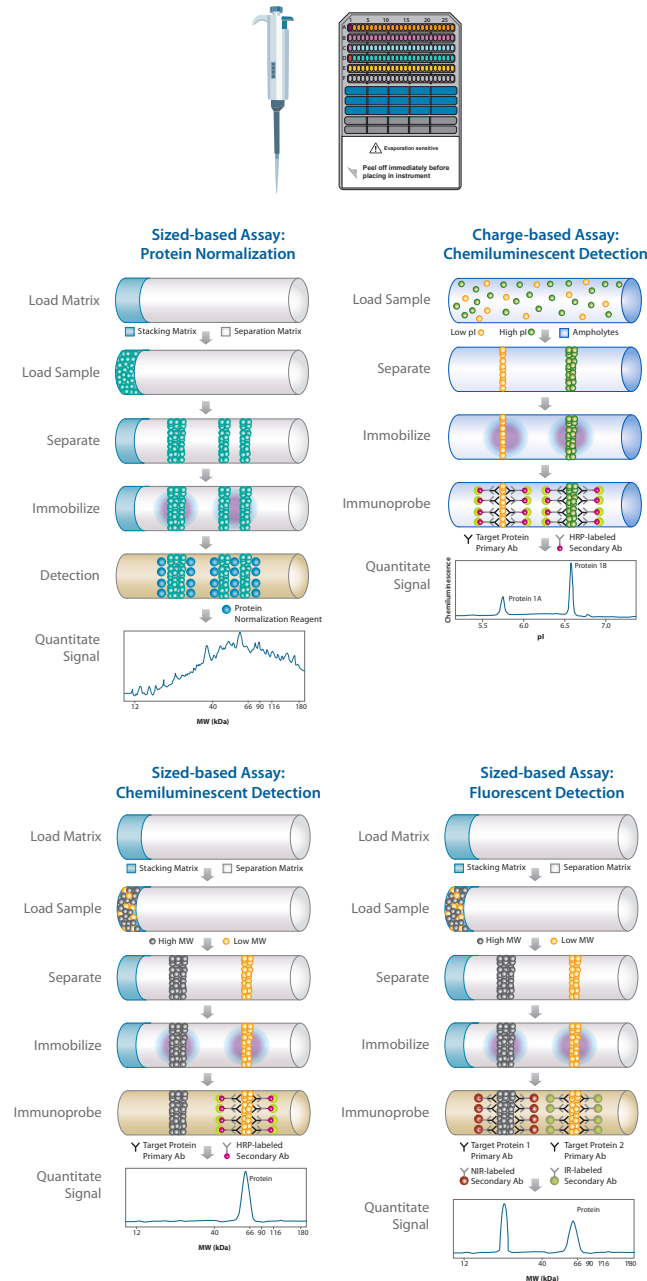
After preparing the reagents, simply load the reagents and samples into a Simple Western plate.

3 Start the run

Place the plate and a 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 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.

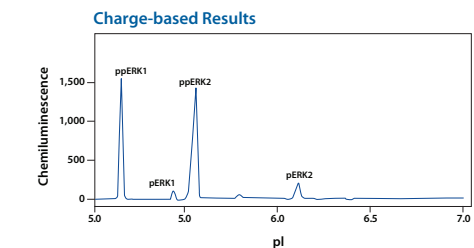
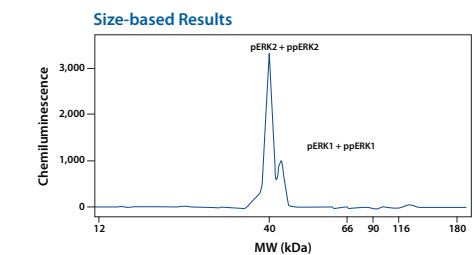
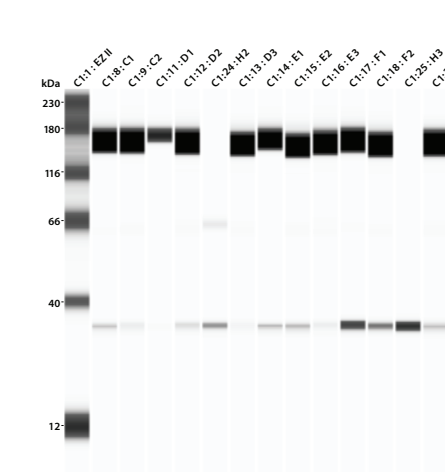


Stop, analyze and wow!

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 for a chart type view 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 electropherogram view. 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.



| 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
- Fully analyzed results in 3 hours of run time
- Chemiluminescence
- IR/NIR
- Protein normalization
- Western blot imaging



Wes

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



Peggy Sue

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



Sally Sue

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



NanoPro 1000

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

Specifications

| SYSTEM | JESS 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 | 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 | 004-650 004-600 | 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* | 3–4 logs | 3 logs |
| Sensitivity | Low pg | High pg | Low pg |

* Wes with HDR detection profile.