



Simple Western Assay (Automatic Western Blot) Service

HIGH SENSITIVITY AND REPRODUCIBILITY

ABOUT SIMPLE WESTERN ASSAYS

Simple Western is a capillary-based nano-proteomic immunoassay and an automatic Western Blot with high throughput capability. It is a hands-free, gel-free, mess-free alternative to the labor-intensive traditional Western Blot.



CAPABILITIES

- Absolute or relative quantitation of any protein of interest
- Quick assay development for novel antigens/targets/antibodies
- Clear separation of proteins based on either sizes (MW ≤ 440 KDa) or electric charges (pI)
- Reliable quantitation of multiple target proteins / biomarkers in samples of limited amount, including fine needle aspirates, laser capture microdissection, cell culture, etc, from animals or human patients
- Real-time toxicological and PK/PD monitoring drug candidates in experimental animals
- Monitoring signaling transduction events in limited samples (as low as 25 cells), great for those from stem cells, bone marrows and sorted cells
- Discovery and validation of biomarkers to support developing predictive and companion diagnostics

- Characterization of monoclonal and polyclonal antibody binding affinities
- Characterization of relative specificity of antibody to the target protein of interest
- Quantitation of protein phosphorylation even without phospho-specific antibodies
- Phospho-protein profiling and quantitation of post-translational protein modifications using pan antibodies (after protein separation by charge/pI value) or using isoform specific antibodies (after protein separation by size/MW)
- Screening test compounds for effects on degradation, expression or modifications of any protein or signaling molecule

SAMPLE REQUIREMENTS

- Samples should be BSL- I or II
- Samples (about > 10 µl of 2 - 4 mg/ml protein) should be submitted
- Any extraction procedures are the responsibility of the researchers. Special arrangements can be made in advance
- Submit samples in a minimum-binding microfuge tubes, accompanied by a template that outlines the sample order
- Ship samples on dry ice

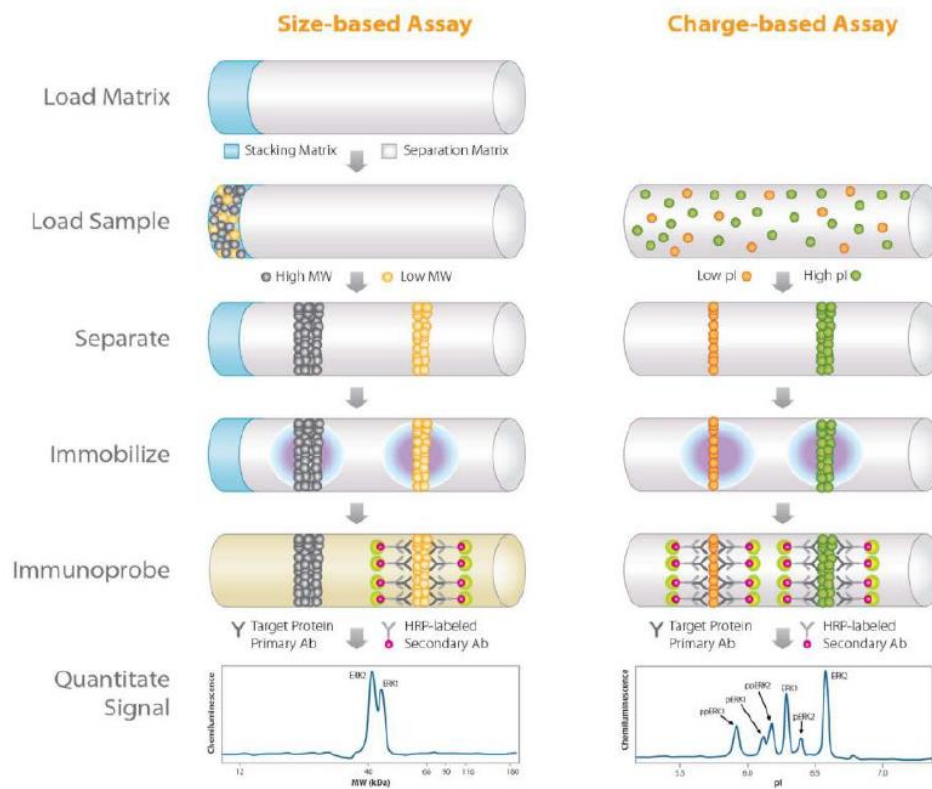
SERVICE FEATURES

- ❖ Highly sensitive and Automatic Western blot to examine proteins in a minimal amount of sample
- ❖ Multiplex
- ❖ Qualitative and quantitative
- ❖ Highly reproducible



- ❖ Flexible: we can quantify any protein of interest, even of rare or low abundance, in samples of limited amount (as low as 25 cells)
- ❖ Minimal samples: Samples can be cells from live animals and patients including fine needle aspirates (FNA), laser capture microdissection (LCM), FFPE samples, sorted cells, as well as serum, plasma, saliva, urine, etc
- ❖ High throughput: 24 or 96-well format
- ❖ State-of-art platforms: Wes, Jess, Peggy
- ❖ Timely data delivery: 1-4 weeks or sooner dependent upon receiving test samples/ primary antibodies

- ❖ 20+ years of experience: Expert data analysis and interpretation, high quality scientific and technical support
- ❖ Optional tests
 - ✓ We have a library of >4000 validated antibodies to examine target proteins
 - ✓ We offer ~100 human cancer cell lines and various primary human cells for testing drugs and biologicals for specific projects
 - ✓ We can do homogenization and preparation of tissue lysates
 - ✓ We can do protein concentration measurement/ normalization using assays such as BCA



This process is fully automated inside the capillary!

Unlike a traditional western, there is **NO**:

Gel or apparatus preparation

Transfer to a membrane

Manual incubation or wash steps

Developing/wasting film

Subjective data analysis