

IMB TechTalk

Dr. Markus Goddemeier Sales Specialist ProteinSimple

"Gel-free, Blot-free, Hands-free:

Quantitative data by fully automated Western Systems"

01 October 2013, 11:00 (s.t.)

Venue: 2nd Floor Seminar Room
Institute of Molecular Biology (IMB)
Johannes Gutenberg University Campus Mainz

All are welcome to attend



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Abstract:

<u>Gel-free, Blot-free, Hands-free:</u>
<u>Quantitative data by fully automated Western Systems</u>

With the "Simple Western" system family, ProteinSimple, Santa Clara (USA) has completely automated the standard Western blot procedure employed for more than 30 years in numerous molecular biology laboratories. From electrophoretic separation and immobilization of proteins to the immunodetection and analysis of chemoluminescence signals by the software, the entire process takes place automatically and without manual interaction or processing of blots or film. The challenges with reproducibility and quantification of the data that often occur during manual Western are completely eliminated.

Depending on the system, 12 to 96 samples can be processed automatically and completely unattended providing true flexibility to the user to complete any study, small or large, in a short amount of time. Samples are analyzed in a microbore capillary requiring sub-microliter volumes saving precious samples and using less of costly antibodies. According to scientific questions, the proteins can be separated based on their size ("classical" Western) or their charge (IEF-Western). This allows for example the quantitative answer of questions to the size and identity of proteins through to the quantification of complex post-translational modifications, such as phosphorylation.

Simple Western systems allow the use of most any sample type ranching from purified proteins to complex clinical samples and lysates. As well, because these systems automate the process, now transferring protocols from user to user and lab to lab has never been so easy.

The savings of many hours of valuable work, the high reproducibility of the results and the accurate quantification of the data make Simple Western systems an indispensable tool for the antibody-based protein analysis.

In the talk, fundamentals and applications of Simple Western assays will be presented and discussed.

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