Up to 800 western blots in one go
Total and phospho proteins

NMI Natural and Medical Sciences Institute

An advanced protein profiling service for in-depth pathway activity analyses in drug development and biomarker discovery. **Save time, go beyond genomics, use less sample, and save lab resources** - look at hundreds of total & phospho proteins in one go![1]

DigiWest® High Content Protein Profiling

APPLICATIONS

DigiWest® can be used for a wide range of research, from **compound mode-of-action studies** to **biomarker discovery** on the protein level. DigiWest® can analyze one or more signaling pathway and it is completely customizable.

SAMPLES

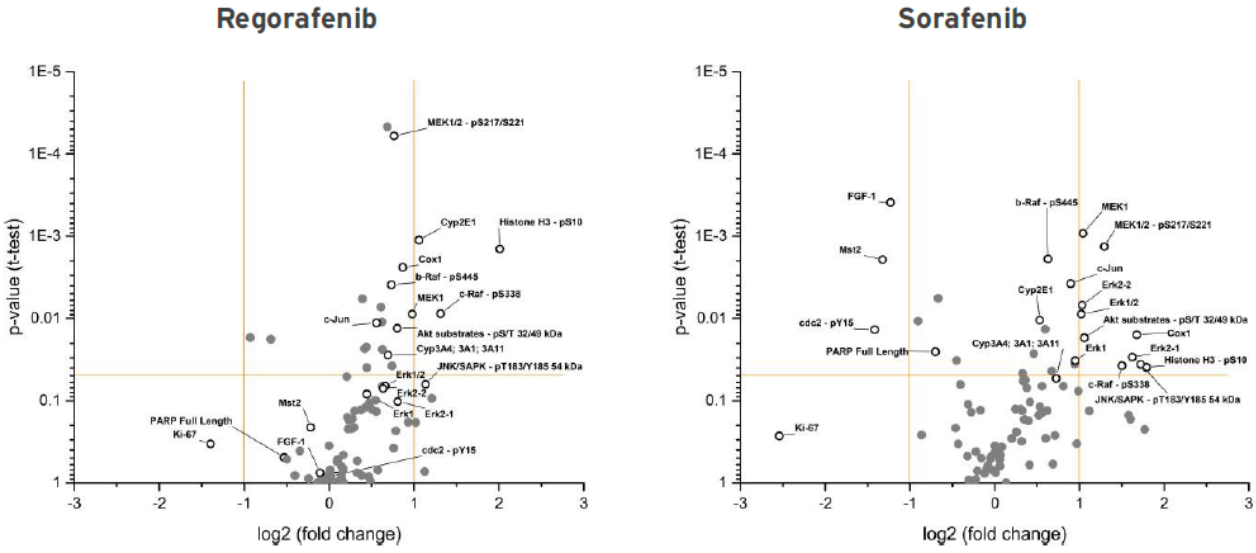
Just **20-60 µg of total protein** is needed for DigiWest® protein profiling, allowing analyses from 2D/3D cells, organoids, xenografts, PDX, tissues, sections (fresh-frozen or FFPE), or samples from various animal models.

ANALYSES

80 to 800 proteins can be analyzed in one go. And the choice is up to you - we offer a selection of 1,200+ analytes (including 300+ phospho-epitopes), which can be picked manually or from **50+ different signaling pathway panels.**

Case Study 1: DigiWest® for Compound Profiling

DigiWest® was used to elucidate the mode-of-action of regorafenib and sorafenib in samples from HCC-PDX mouse models. Understanding the effects of those drugs on the tumor is a crucial step on the way to identifying the molecular basis for combination therapies in HCC (hepatocellular carcinoma).[2]



Contact

NMI Natural and Medical Sciences Institute at the University of Tübingen

Markwiesenstrasse 55
72770 Reutlingen, Germany

www.nmi.de/en

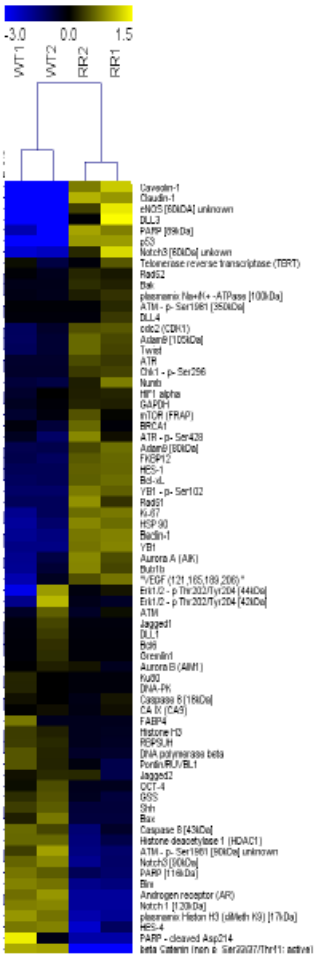
Contact
Dr. Markus Templin
Email markus.templin@nmi.de
Telefon +49 712151530-828

Case Study 2: DigiWest® for Biomarker Discovery

DigiWest was used for the discovery of clinically relevant markers of radioresistance, using isogenic 22Rv1 prostate cancer model of wild type (WT) vs. radioresistant (RR) cells.

DigiWest profiling hits PARP1, AR, p53, Notch3, YB1 were further independently validated.

Pharmacological targeting of these proteins yielded a significant radiosensitization effect.[3]

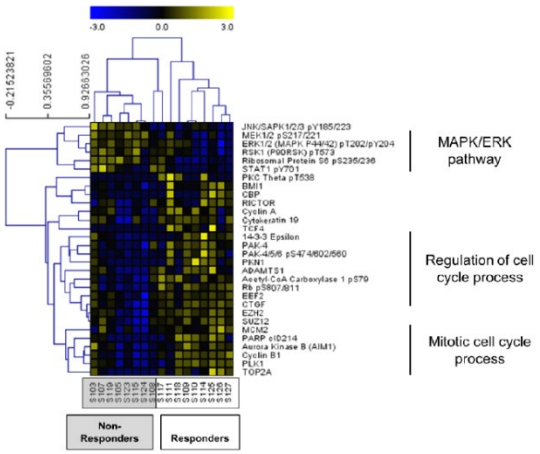


Case Study 3: DigiWest® for Translational Oncology

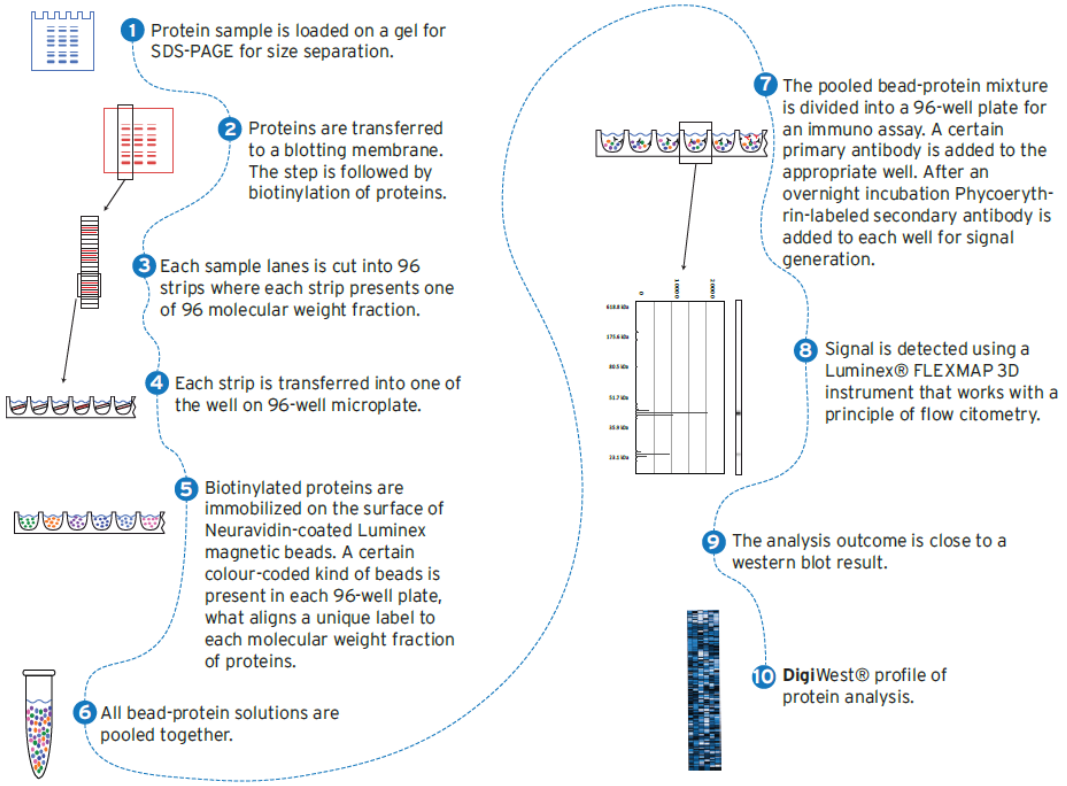
In a retrospective study, DigiWest (279 total & phosphoproteins) was performed on primary tumor samples from 8 non-responsive vs. 9 responsive ovarian cancer patients.

The data analysis showed distinct protein marker signatures for resistant vs. sensitive patients.

Marker EZH2 was later confirmed in the patient-survival analysis.[4]



How It Works



References

1. Treindl et al. A bead-based western for high-throughput cellular signal transduction analyses. Nature Communications 2016
2. Kissel et al. Antitumor effects of regorafenib and sorafenib in preclinical models of hepatocellular carcinoma. Oncotarget 2017
3. Inder et al. Multiplex profiling identifies clinically relevant signalling proteins in a prostate cancer model of radioresistance. Scientific Reports 2019
4. Naskou et al. EZH2 loss drives resistance to carboplatin and paclitaxel in serous ovarian cancers expressing ATM. Molecular Cancer Research 2019