sciomics

enabling precision medicine

scioDiscover

highly-parallel protein analysis

Biomarker discovery

Immuno-oncology

Stem cell analysis

Apoptosis and cell cycle analysis

Transcription factor analysis

Organ failure

Predictive toxicology

Advantages

- High content analysis of 900 proteins
- Broad spectrum covered such as oncology and organ failure
- Low sample volumes required (10 µl plasma/serum)
- Profiling of native samples (non-fractionated/non-depleted)
- Sensitivity comparable to ELISA assays
- Fully immuno-based assay (easy translation into diagnositc assays)
- Reliable dual-colour study design
- High reproducibility (CV < 10%)
- Complete sample-to-result service including full data analysis and study report

Features

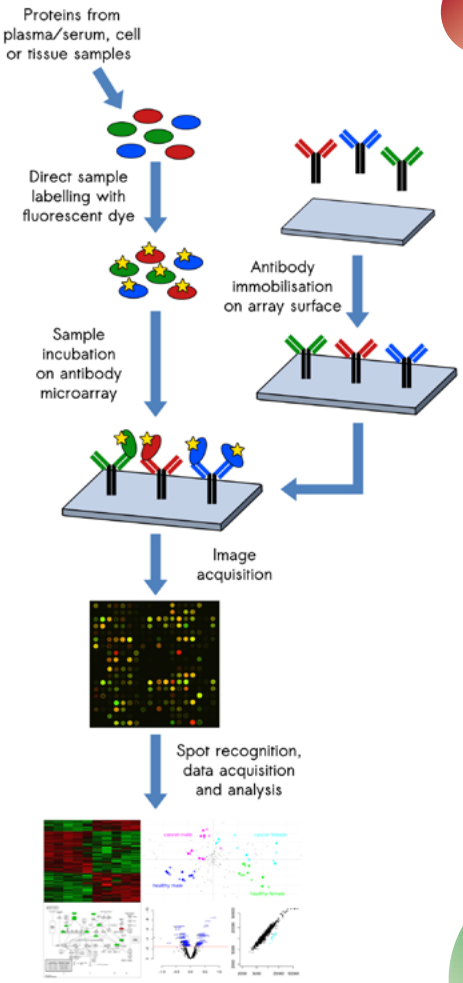
- Parallel analysis with 1130 antibodies
- Broad coverage of:
  - Signalling pathways
  - Transcription factors
  - Apoptosis markers
  - Oxidative stress response
  - Cell surface molecules
  - Cytokines & chemokines
- Several sample types possible:
  - Plasma/serum
  - Tissue samples
  - Cell culture pellets
  - Cell culture supernatant
  - Cerebrospinal fluid (CSF)
  - Additional sample types on request
- Studies possible in human, murine and rat samples
- PTM analysis on request

Applications

- > Biomarker discovery
- > Drug target discovery

- > Cancer pathway screening
- > Signalling pathway profiling
- > Immune activation profiling
- > Disease mechanism profiling
- > Transcription factor analysis
- > Apoptosis and cell cycle analysis

- > Stem cell analysis
- > Ageing research
- > Regenerative medicine

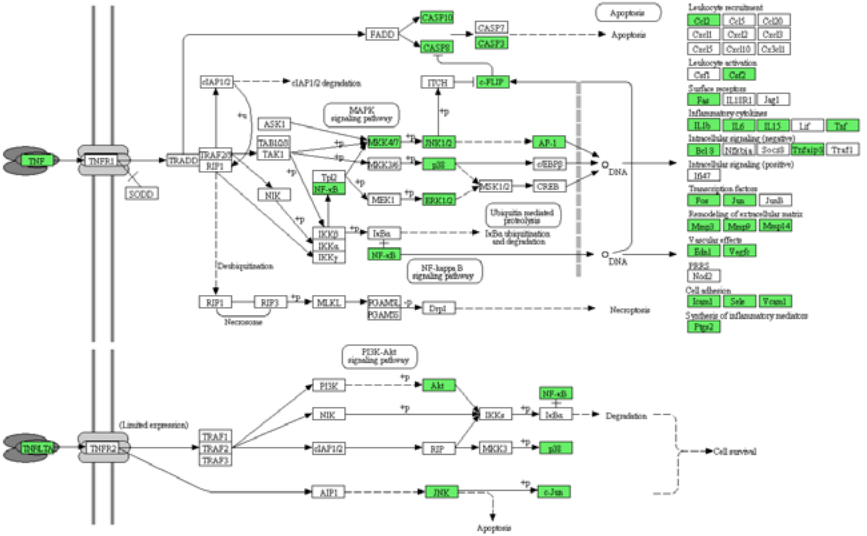


Coverage of cancer pathways

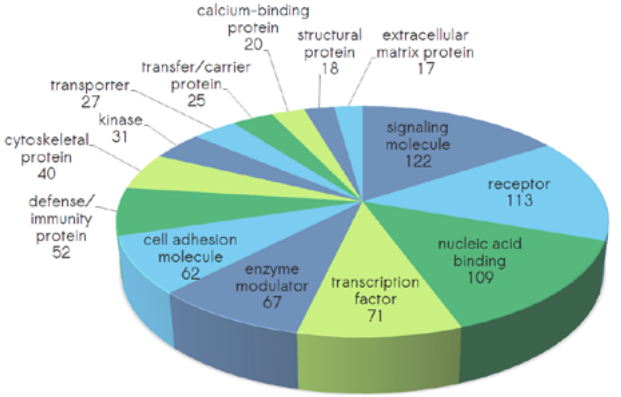
Selected pathway	No. of targets
Inflammation signalling (chemokines/cytokines)	40
Apoptosis signalling	38
Integrin signalling	29
Angiogenesis	28
Interleukin signalling	27
p53 pathway	22

Selected pathway	No. of targets
T cell activation	22
B cell activation	21
Ras pathway	18
Wnt signalling	17
TGF-beta signalling	17
EGF receptor signalling	17

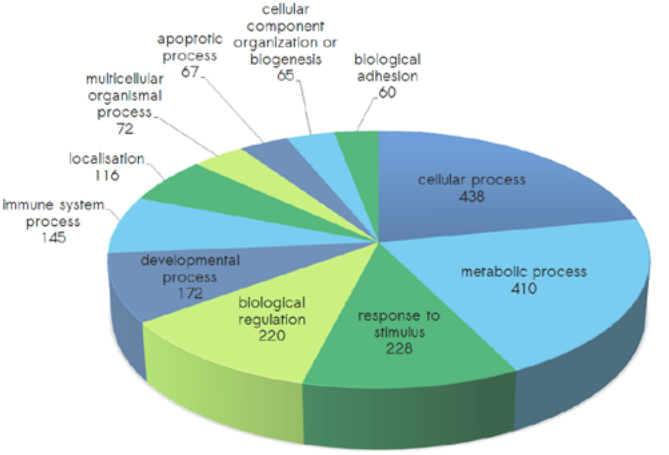
TNF signalling pathway



Protein classes



Biological processes



scioDiscover sample-to-result service

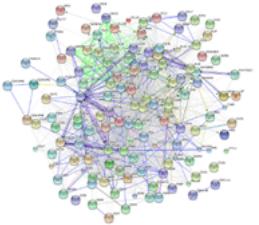
- Definition of study design
- Sample preparation
- Protein extraction
- Protein concentration measurement
- Protein qualitiy control

- Sample labelling
- Incubation of the samples on scioDiscover antibody microarrays
- Microarray scanning
- Raw data acquisition

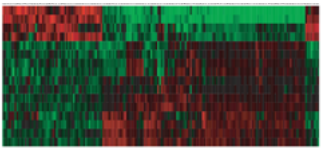
- Data normalisation
- Data analysis including hierarchical clustering analysis
- Statistical testing for differentially abundant proteins
- Additional analysis types available on request
- Comprehensive study report

Hierarchical clustering

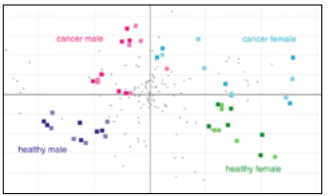
Protein interaction analysis



Heat map of differentially expressed proteins



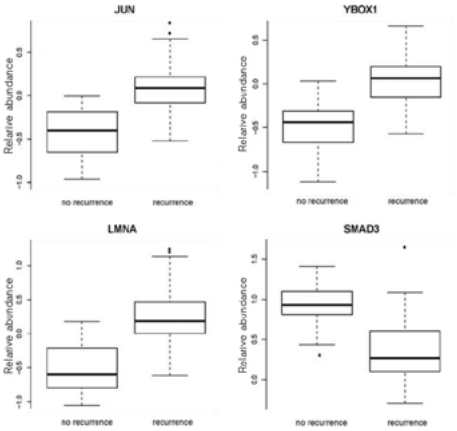
Principle component analysis



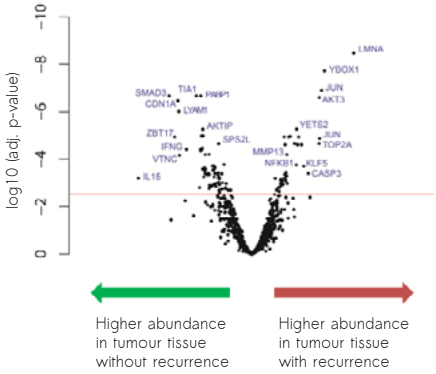
Case study: Recurrance of bladder cancer

Comparison of protein expression profiles in bladder tumour tissues with and without recurrance in the clinical course.

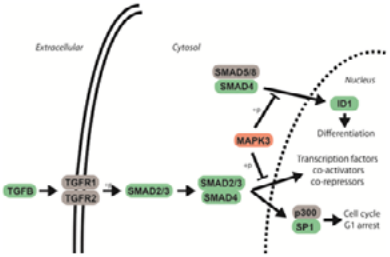
Highly relevant proteins were identified which are specific to the individual tumour subtypes.



Four proteins show a clear differentiation of recurrent and non-recurrent tumours.



TGFB pathway



green lower abundance in recurrent cancer
red higher abundance in recurrent cancer

What our customers say

„The Sciomics protein profiling platform [...] has undoubtedly opened new avenues in our research. We have found the Sciomics team to be extremely helpful and efficient during the whole process, from advising the best strategy to the final interpretation of results."

Dr. Leonardo Guasti, Barts and The London, Queen Mary's School of Medicine and Dentistry, London, United Kingdom

„I was very satisfied by the service offered by Sciomics. Conducting a project with Sciomics did feel like dealing with a partner who pays attention to the smallest details and is very interested in the success of the project."

Dr. Gaith Bakdash, Department of Tumor Immunology, RadboudUMC, Nijmegen, The Netherlands

„Sciomics antibody microarray really helped us to move forward. I am more than pleased to recommend Sciomics Antibody Microarray analysis service. The results were sent fast and ready to publish! If I hit a road block in my experiments, I am sure that their services will help me go through."

Dr. José Pedro Castro, German Institute of Human Nutrition (DIfE), Potsdam-Rehbrücke, Germany

Additional Sciomics products

scioCD	Cell surface marker profiling (available as microarray kit and as a full service)
scioPhospho	Phosphorylation level analysis
scioExtract	Protein isolation buffer for tissue and cell samples

Sciomics GmbH
Im Neuenheimer Feld 583
D-69120 Heidelberg
Germany

info@sciomics.de
www.sciomics.de

T +49 6221 4294830