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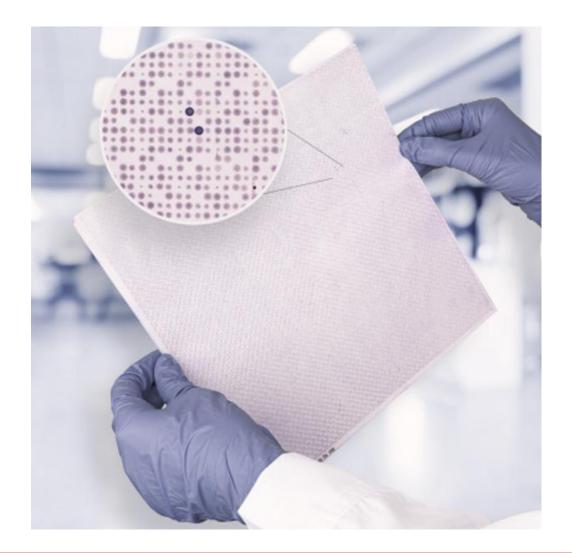
# **Discover Novel Biomarkers**

Your Question. Our Service. Your Result!

# **Engine** the biomarker company

## **engine** the biomarker company

## Want to identify new biomarkers?



Give us your hypothesis and sample. We analyse >15,000 antigen interactions with our protein arrays.

You identify antigens and proceed with biomarker validation.

We accelerate your research from hypothesis to candidate validation!



## **Biomarker Testing Service**

## Save time. Maximize results. Publish faster.

## Increase your chance for paramount discoveries



>15,000 human antigens with unique proteome coverage	High discovery power of >15,000 human full-length antigens, protein isoforms & peptides. Our arrays harbour the largest neoantigen & frameshift peptide library worldwide!
More results in less time	We analyse the interactions of your sample with >15,000 antigens, you identify the promising antigens and proceed with your biomarker validation. Results within 2 weeks e.g. for 6 samples.
Over 100 case studies	Scientists from various research and diagnostic areas have used our protein arrays successfully for their analysis of interactions with numerous types of molecules.
More than 15 years experience	Get expert support for your unique project. We cover the full value chain from production to screening service in-house.

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## How it works



#### 1. Your question.

Send us your sample, we set up the analysis according to your needs. Optional: additional antigens of your interest can be spotted on the array

#### 2. Our service.

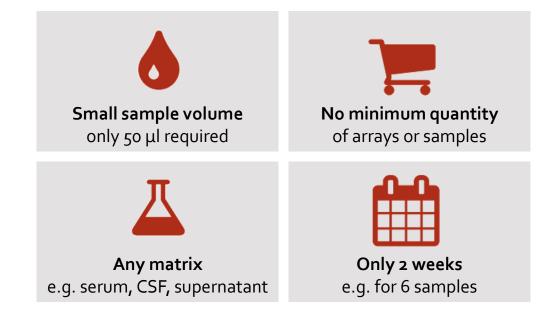
In-house analysis Optional: disease-related protein modifications

#### 3. Your result.

Receive your evaluated results: analysis of interactions, antigen identification, scientific report incl. raw data. Discuss results with our experts. Identify the recognized antigens directly!

### 4. Your validation.

Customized subarrays with your most promising candidates for costefficient candidate validation. Optionally, receive information for follow-up research or translation into a clinical or diagnostic approach.



## High discovery power



Hypothesis-free & unbiased	Our testing does not require knowledge of probable interactors and is independent of current status-quo techniques and free of any bias.
Small sample, big data	Get a high quantity and quality of sample-specific, reliable and reproducible data – out of only 50 µl sample of any matrix, e.g. serum, CSF, cell supernatant.
Compare biospecimens & protein modifications	Decipher disease-related correlations and compare matrices like sera or CSF, from patient or diseases groups, controls or healthy individuals. Unravel the role of protein modifications.
Easy follow-up	Receive all necessary information or customized subarrays for further experiments and support reproducibility for an unconstrained verification of your hypothesis.

## From scientists for scientists





## **Aligned decisions**

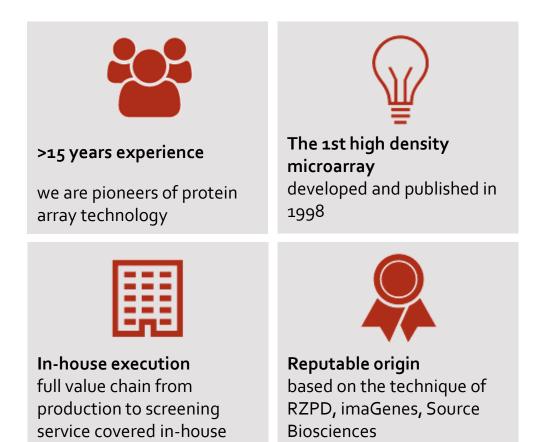
Joint preparation and decision about the experimental setup. Address questions or discuss results with your dedicated, experienced experts. Strictly confidential maintain control over your data, results and samples.

### Get faster to grant!

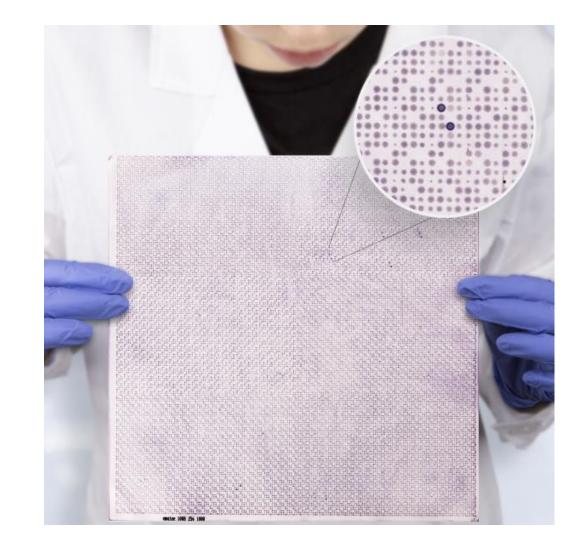
We help you with your application! Fast results and the increased probability of innovative insights facilitate your grant approval.

### No sample material available?

We procure any desired human biospecimen you need.







## engine Protein Arrays

# Your chance for breaking discoveries

## engine Protein Arrays





#### Unique coverage of human proteome

High content of >15,000 full-length antigens, protein isoforms & peptides, neoantigens & frameshift peptides.

### Largest neoantigen library

Frameshift mutations are commonly the cause of severe pathologies. Investigate, if neoantigens and frameshift peptides are relevant in your disease of interest.

## **Robust & documented technology**

Based on the technique of RZPD, imaGenes & Source Biosciences and with permanent evaluation of quality, published in more than 100 studies.

## **Enzymatic modification**

With enzymatically modified protein arrays you can investigate if citrullination, phosphorylation or carbamylation are disease-associated or causative.



hEXselect Protein Array Human fetal brain cDNA library



**UniPEx Protein Array** Human fetal brain, T-cells, lung and colon cDNA library



**Custom Protein Array** Generated from our cDNA library.

## Explore the protein universe

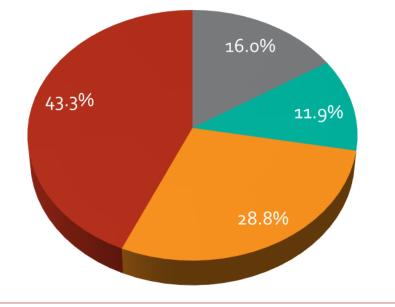


*E. coli* clones spotted onto PVDF membrane (22 x 22 cm / approx. 8.7 x 8.7 inch) express recombinant human proteins with N-terminal RGS-His<sub>6</sub> tag.

■ controls

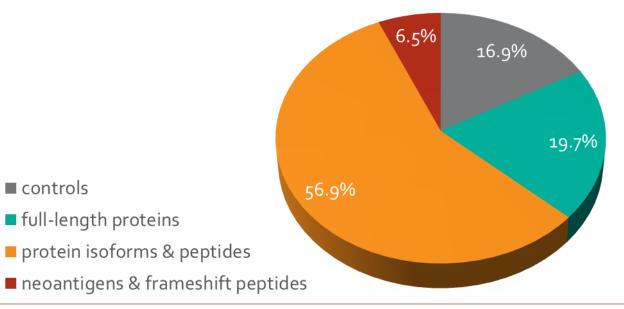
#### **hEXselect** engine Protein Array

Product No.	1003
Source	Human fetal brain cDNA
Array Content	>57,000 spots in total, >21,000 distinct human antigens, >7,000 different genes



#### **UniPEx** engine Protein Array

#### 1008 Human fetal brain, T-cells, lung and colon cDNA >36,000 spots in total, >15,000 distinct human antigens, >6,000 different genes



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## More than 100 case studies



Use our <u>publication database</u> and explore the potential for your research!

## **Diseases & pathways**



- Apoptosis
- Autoimmune diseases
- Cancer
- Cardiovascular disease
- Corona virus
- Diabetes
- Food, microbiome
- Infection & vaccination
- Inflammation
- Kidney disease
- Neurobiology
- Signalling pathways

#### **Target interactions**



- Antibody profiling (e.g. IgM, IgG, IgA)
- Antibody specificity
- DNA/RNA binding
- Enzymatic modifications
- Immune response profiling
- Protein-protein interactions
- Small molecule profiling

## **Biomarker applications**



- Companion diagnostics
- Diagnostics
- Drug discovery & therapeutics
- Monitoring
- Personalized medicine
- Risk stratification & prognostic
- Prediction & response
- Vaccination

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## **Free Brainstorming Session**

Get in contact with our experts – we are happy to answer any question! info@proteinarrays.bio +49 (0)3302 55 199-0 https://proteinarrays.bio



