



Peptide Microarrays for

- > Peptide Biomarker Discovery
- > Immune Response Monitoring
- > Protein-Protein Interaction Studies
- > Substrate Identification for Enzymes

Spot™ and PepStar™ are JPT's proprietary high throughput peptide synthesis and microarray platforms. The synergy of these technologies allow proteome-wide profiling of antibody signatures as well as protein-protein and enzyme-substrate interaction studies at much higher flexibility compared to protein arrays.



JPT creates unique high-quality peptide microarrays by combining its two platform technologies PepSpot™ and PepStar™. The ultra-high throughput peptide synthesis is able to deliver tens-of-thousands of peptides which are attached to glass slides or membranes.

This extremely flexible and efficient approach allows design, generation and profiling of tailor-made and pre-defined peptide microarrays within weeks, no matter whether their content is spanning single antigens, antigen families or entire pathogenic proteomes.

Our Technologies

PepSpot™

- Ultra high-throughput peptide synthesis
- Capacity: up to 50.000 peptides / week
- Amount: 5 to 250 nmol / peptide
- Full range of QC analytics available
- Delivery options:
 - freeze dried peptides in microplates
 - covalently linked to membranes

PepStar™

- Tailor-made and pre-defined peptide microarrays on glass slides
- 1 to 50 000 peptides covalently immobilized
- On chip triplicates for highest reproducibility
- All peptides purified
- Identical series of peptide chips available from one peptide batch

Compare JPT's Peptide Microarrays to Protein Arrays – and see the Advantages

	Peptide Arrays	Protein Arrays
Extended shelf stability	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexibility in preparation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Robustness in application	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cost efficiency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
High batch-to-batch reproducibility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
High spot-to-spot loading reproducibility	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Many post-translational modifications possible	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Integration of non-natural amino acids	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Your Applications

- Discover novel peptide biomarkers for cancer, allergies, infectious and autoimmune diseases
- Monitor clinical vaccination trials
- Map antigens, entire proteomes or random peptide collections
- Profile antibody signatures using patient samples (i. e. serum, whole blood)
- Use our peptide arrays to QC your protein preparation
- Decipher the action of neutralizing antibodies
- Find new enzyme substrates, detect cleavage and phosphorylation sites
- ... and many more...

Your PepStar™ Benefits

Custom Peptide Microarrays

- No other source provides custom peptide microarrays faster, more cost efficient and at higher quality
- Receive a regular peptide microarray within 10 days
- Transparent pricing: pay per peptide (from US\$ 15 / peptide) plus printing
- Get copies of your master chip for just US\$ 130 / copy
- Use standard ELISA protocols for binding experiments
- Apply our validated protocols to study enzymatic activity
- Take advantage of our bioinformatics expertise to create your peptide set

Pre-defined Peptide Microarrays

- Antigens from infectious diseases: such as HIV, TBC, EBV, CMV, HCV, Dengue Virus and more...)
- Known cancer antigens: such as WT1 (WT33), NY-ESO-1, Prame / OIP4 and more
- Random peptide collections
- Thousands of Kinase, Phosphatase and Protease peptide substrates

All JPT arrays are produced according to DIN EN ISO 9001:2000 Quality Management Standards.

References

Prion recognition elements govern nucleation, strain specificity and species barriers, Tessier & Lindquist, Nature, Vol. 447 (2007), p. 556-561.

Analysis of antibody response in humans to the type A OspC loop 5 domain and assessment of the potential utility of the loop 5 epitope in Lyme disease vaccine development, Buckles et al., Clin Vaccine Immunol., Vol. 13 (2006), p. 1162-1165.

The cell-cycle regulator geminin inhibits Hox function through direct and polycomb-mediated interactions, Luo et al., Nature, Vol. 427 (2004), p. 749-753.

Profiling of generic anti-phosphopeptide antibodies and kinases with peptide microarrays using radioactive and fluorescence-based assays, Panse et al., Mol. Divers., Vol. 8 (2004), p. 291-299.

Peptide arrays: from macro to micro, Reimer et al., Curr. Opin. Biotechnol. Vol. 13 (2002), p. 315-320.

High-content peptide microarrays for deciphering kinase specificity and biology, Schutkowski et al., Angew. Chem. Int. Ed., Vol. 43 (2004), p. 2671-2674.

Testimonials

"We have successfully applied JPT's peptide microarrays as a screening tool for potential kinases transferring phosphate to phosphorylation sites identified by mass spectrometry. The triplicate alignment as well as the thorough selection of controls enabled generation of high quality data confirming our in vivo data generated by means of affinity chromatographic procedures."

Marcelo P. Coba, PhD (The Wellcome Trust Sanger Institute, Cambridge, UK)

"One focus of our group is to decipher the nature of immune responses by identification of biomarkers and indicators of immune protection. With the support of JPT's high content peptide microarray platform, we created a peptide chip which contains 22.000 individual peptides. This enabled the visualization of the B-cell "signature" in individuals with TB-infection vs. non- infected individuals. In our hands, JPT's peptide microarrays turned out to be very robust tools to identify novel peptide based biomarkers in the context of novel diagnostics and vaccine target identification."

Prof. Markus Maeurer (Karolinska Institute, Solna, Sweden)





Discuss your project with us

Please fax back to +49-30-6392-5501

My field of application is

- Monitoring vaccination trials
- Epitope discovery (B-cell)
- Epitope discovery (T-cell)
- Immunomonitoring
 - () infectious diseases () allergies
 - () autoimmune diseases () organ transplantation
- Biomarker discovery
- Adoptive immunotherapy
- T-cell assays

other: _____

I wish to receive more information about JPT's

- Peptides
 - Peptide arrays
 - Customized PepMixes™, please specify antigen: _____
 - Ready-to-use PepMixes™
 - Peptide libraries
 - Peptide scans
 - B-cell epitope mapping service
 - Enzyme profiling
- other/please specify: _____

I like to receive JPT's newsletter

May we contact you by phone or mail?

Name

Inst./Company

Town

Phone Number

Official Email Address



Find your JPT product at one glance

Immuno Tools

PepSpot™ Array Service
PepMix™
RepliTope™
Customized Antibodies

Peptides & Arrays

PepStar™ Microarrays
Custom Peptides
Macroscale Peptide Sets
Microscale Peptide Sets
BioTides™

Enzyme Profiling Tools

Kinase Profiling Tools
Phosphatase Profiling Tools
Protease Profiling Tools



Innovative Peptide Solutions

JPT Peptide Technologies
www.jpt.com | peptide@jpt.com

European Head Office
T +49-30-6392-7878
F +49-30-6392-7888

USA/Canada
T 1-888-578-2660
F 1-888-578-2666