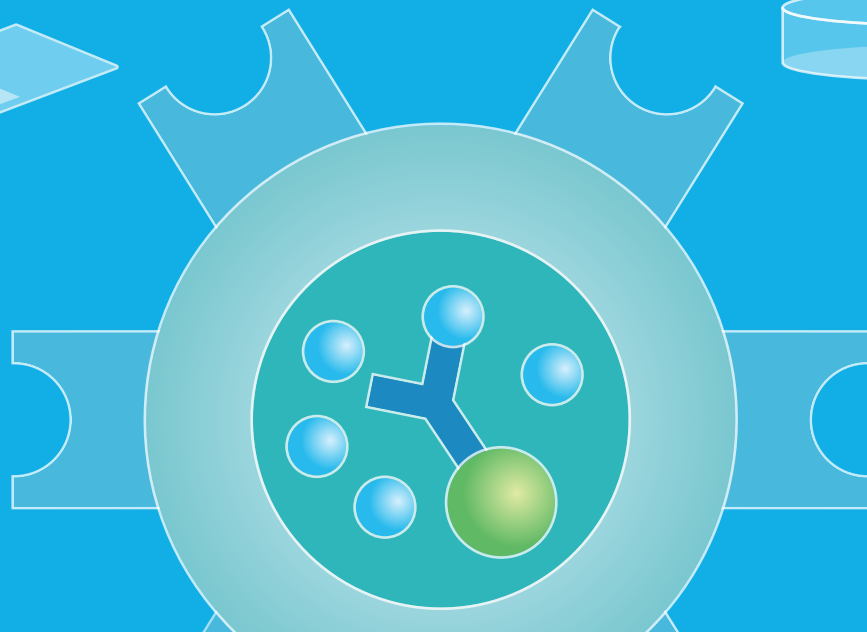
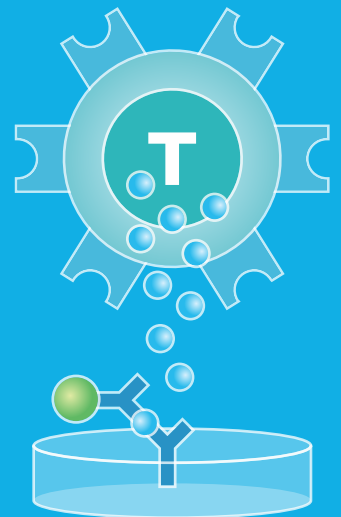
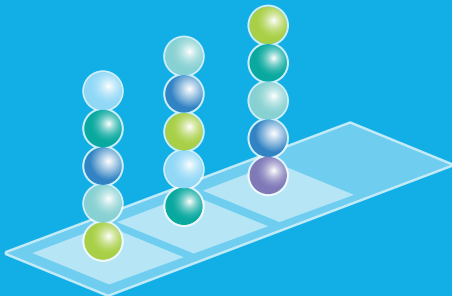
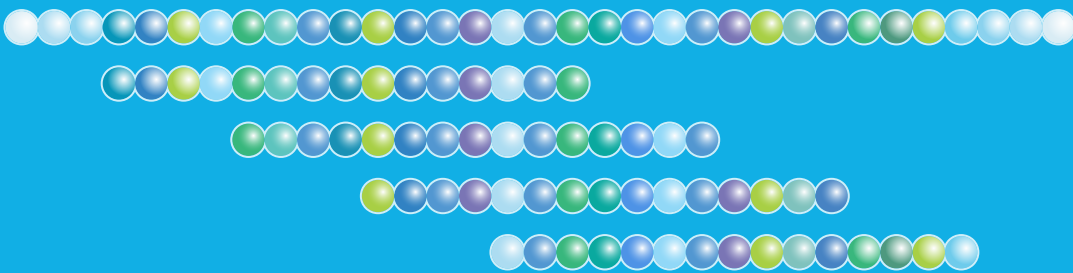
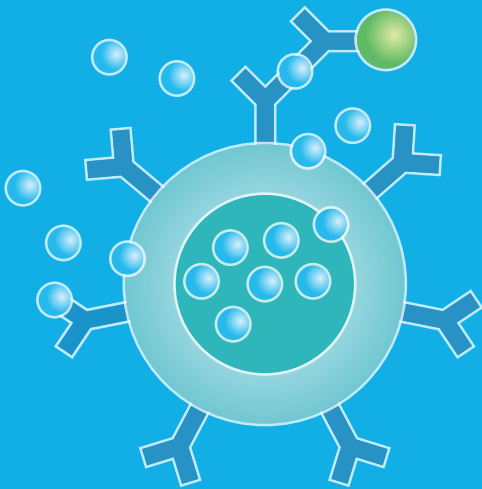




Your Peptide
Partner for

Immunology

- Peptide Pools
- Peptide Libraries
- Individual Peptides
- Peptide (Micro-)Arrays
- Bioconjugates (KLH, BSA ...)
- Peptide ELISA





We are the Peptide Experts

Wide Variety of Peptide Formats

JPT has developed a portfolio of innovative technologies, products, and services that help advance the development of new immunotherapies and vaccines, proteomics studies, and drug discovery. Among our key technologies are:

- **Custom & Modified Peptides:** We go the extra mile to get your peptides done!
- **PepMix™ & SpotMix:** Antigen-spanning peptide pools to stimulate CD4+ and CD8+ T cells.
- **PepTrack:** Peptide libraries optimized for different types of assays.
- **Pre-GMP & Clinical Peptides:** Peptides for immune monitoring or therapy & vaccine development.
- **PepStar™:** Peptide microarrays for humoral immune response profiling.
- **SPOT:** High-throughput peptide formats for screening and discovery.
- **Antigen Peptides:** 1000s of ready-to-use individual peptides in stock!
- **Bioconjugates:** Custom conjugation of peptides to carrier proteins (KLH, BSA, CRM...).

Quality Management

We are committed to the highest standards and have been ISO 9001 certified since 2004. We are audited annually by a notified body to ensure compliance. We produce exclusively in our labs in Germany.



Scientific knowledge

A large percentage of our employees hold scientific degrees in natural sciences or medicine. We take pride in our collective expertise, which enables us to understand your work, provide the best quality peptides and advise you on all things peptide.

Our immune monitoring peptide tools largely contributed to the development of several COVID vaccines and other important studies in the field.

Thousands of peer-reviewed publications demonstrate the success of our peptide products.

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JPT is a Specialist in Immunology Peptides

We are the peptide provider for all peptide related projects in the development of cell- and immunotherapy, vaccine development and immune monitoring. Our proprietary technologies support your research and development goals in studying and battling infections, cancer, autoimmune diseases, as well as allergies.



Selected Application Notes by our Customers

L. Loyal and A. Thiel
"Cross-reactive T cells enhance immune responses in SARS-CoV-2 infection and vaccination"

E. Derhovanesian, U. Luxemburger, M. Beck, F. Gehring, [...] and U. Sahin
"A Fast & Low Cost Process for Neo-Epitope Based Immune Monitoring"

S. Lam, C. Russell Cruz and C. Bollard
"Developing Multi-HIV Antigen Specific T Cells as a Component of a Cure Strategy"

R. Gary, M. Aigner, A. Moosmann and A. Gerbitz
"Peptide-Stimulated Expansion of Virus-Specific T Cells for Preventative Treatment after Allogeneic Stem Cell Transplantation"

R. Holtappels
"Strategy for Identification of CD8 T-cell Epitopes in a Viral Protein"

U. Reimer, B. Wunderlich, C. Scheibenbogen and K. Ruprecht
"Multiple Sclerosis and Epstein-Barr Virus Infection – An Epitope Mapping Study"

H. Jolink and M. H. M. Heemskerck
"Characterization of the Aspergillus-Specific T-Cell Response by Using Crf1 and Catalase1 Overlapping Peptides"

J. M. Keirnan, C. M. Rooney, and A. M. Leen
"PepMix Peptide Pools for Clinical Applications: T Cell Therapy for Viral Infections after Hematopoietic Stem Cell Transplant"

M. Daneschdar, HU. Schmoltdt, L. M. Plum, Y. Kuhne, M. Fiedler, A. Masch, K. Schnatbaum, J. Jansong, J. Zerweck, H. Wenschuh, U. Reimer, O. Tureci and U. Sahin
"Rapid Mimotope Optimization for Pharmacokinetic Analysis of the Novel Therapeutic Antibody IMAB362"

Y. Kuhne, T. Rosler, C. Fleig-Kramer, C. Haarstrich, K. Cappel, R. Hipfel, A. Rothermel and U. Sahin
"BioTides as high-throughput Screening Tool for the Identification of Antibody Binding Sites"

Our Technologies & Products

Soluble Peptides

Peptide Pools

PepMix™
SpotMix

Peptide Libraries

PepTrack

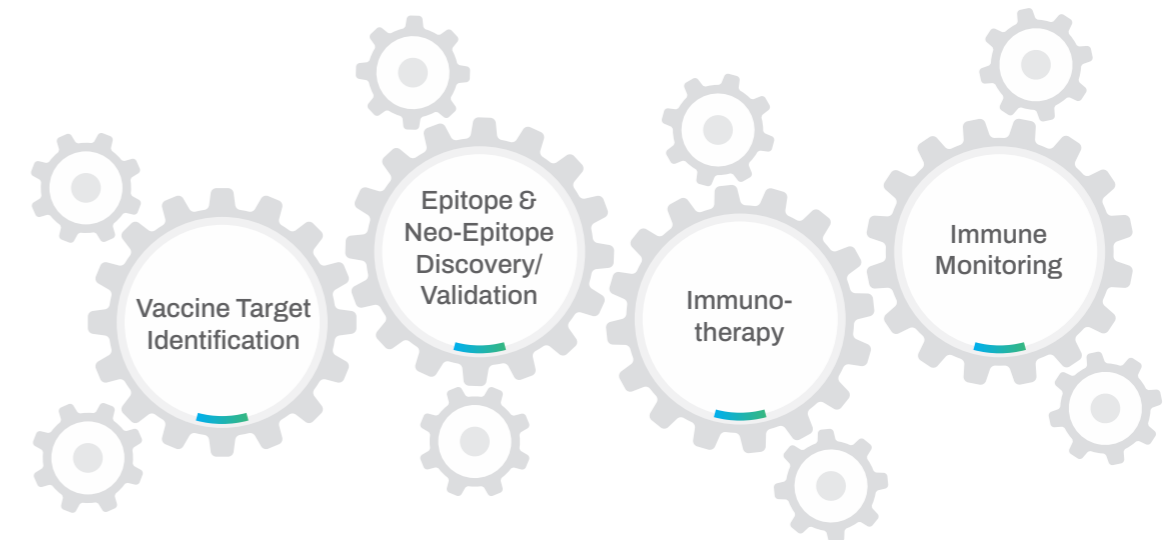
Antigen Peptides

Pre-GMP & Clinical Peptides

ISO Plus
CGP Peptides

Custom Peptides

Modified Peptides
MAP Peptides
Bioconjugates



Peptide Microarrays

High Content PepStar™
Multiwell PepStar™

Peptide Arrays

PepSpots

Peptide ELISA

Biotinylated Peptides

BioTides

Humoral Immunity

Soluble Peptides

Let's talk about peptides for T cell assays!

Peptide & Pool Design



There are many ways to design your peptide library or pool. Ask us for support!

Peptide Purity



Even small impurities may create huge problems in T cell assays. However, the impact depends strongly on the application. From research grade over development grade to trial grade, we offer our peptides at many purity levels. Let us help to select your specification.

Solubility



Ever struggled with dissolving a peptide or having limiting solvent choices? We can help you predict the solubility of a peptide and select the according sequences.

JPT offers a broad range of products and services to address cellular immunity. These include PepTrack peptide libraries enabling fast target discovery and neo-epitope qualification, PepMix™ Peptide Pools for reliable clinical immune monitoring, Clinical Peptides for cell- and immunotherapy.

Stability & Storage



About 20 % of all peptides show a limited shelf stability. How do you recognize and handle potentially unstable peptides? We will support you.

Peptide Content & Net Weight

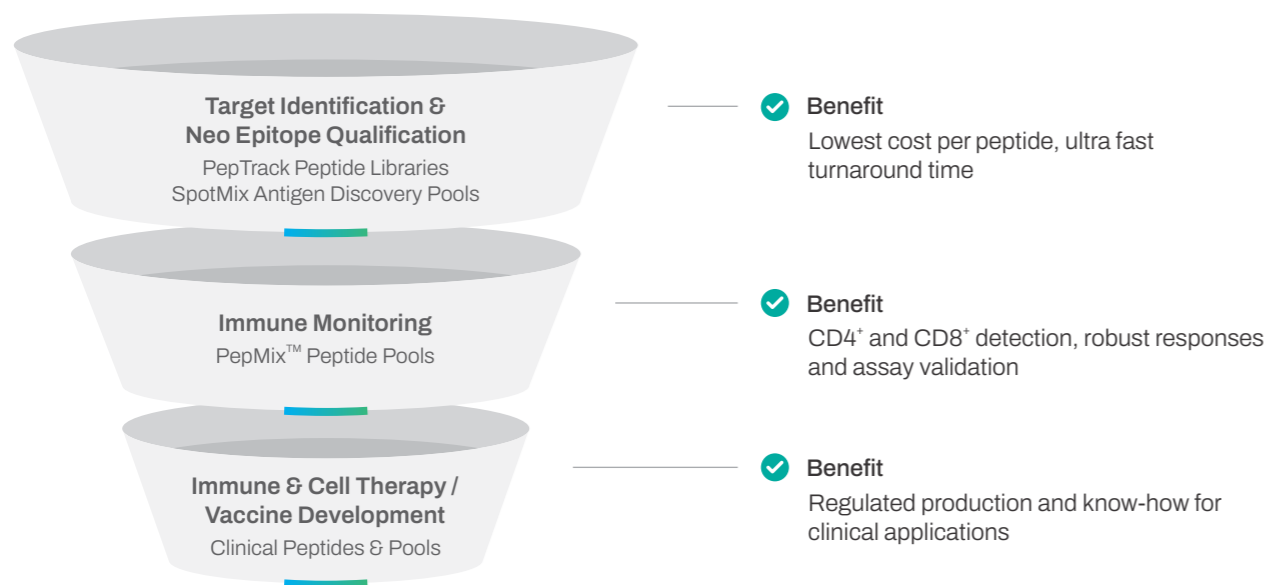


In addition to side products analyzed by HPLC, peptides contain non-peptidic components. Absolute quantification of peptides is essential to accurately adjust peptide concentration.

Cross Contamination



Contamination with other peptides, causing false positive T cell responses, poses a challenge for immunology products. Learn about our measures to warrant line clearance.



Antigen Peptides

Our catalog of individual antigen peptides represent immune dominant epitopes from different viral, bacterial and other species, whereas our PepMix™ Peptide Pools reproduce a whole protein antigen by a mixture of overlapping peptides. Our antigen peptides are purified to >90% and in stock for a quick delivery. We have 1000s of Antigen Peptides in stock from more than 60 different species! Examples are MOG35-55, OVA 257-264, NY-ESO-1, CMV pp65, MART-1, Influenza M1 and many others.

Specifications

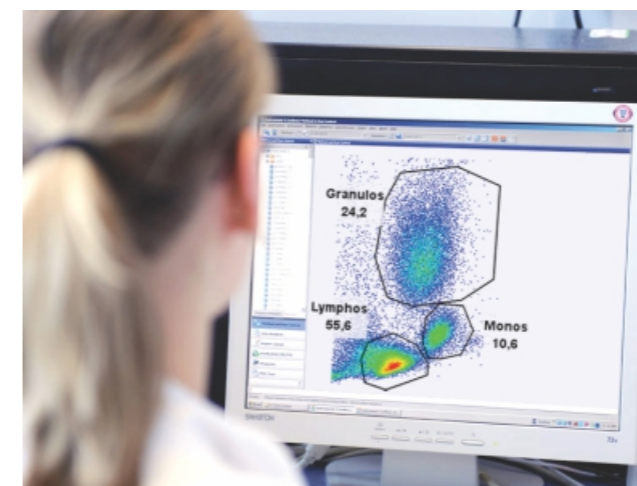
- Trial Grade: each peptide purified to > 90% (HPLC/MS)
- Quick Delivery Time: 2-5 days
- HPLC-MS analyses included to confirm identity and quality
- Optimized synthesis protocols avoid contaminants and side products

Applications

- Stimulation of antigen-specific CD8⁺ T cells
- Immune monitoring of cellular immune responses
- Validation of multimer assay results

Benefits

- Production exclusively in Germany
- Proven track record for applications in clinical studies
- Freeze-dried for long shelf-stability
- Off-the-shelf for quick delivery



Antigen Peptides are used for antigen specific stimulation in T cell assays.

Selected References

"Antibody-based delivery of interleukin-2 modulates the immunosuppressive tumor microenvironment and achieves cure in pancreatic ductal adenocarcinoma syngeneic mice"

Carbone et al, Journal of Experimental & Clinical Cancer Research (2025)

"Impact of genotypic variability of measles virus T-cell epitopes on vaccine-induced T-cell immunity"

Emmelot et al., NPJ Vaccines (2025)

"ATLAS-seq: a microfluidic single-cell TCR screen for antigen-reactive TCRs"

Luo et al., Nature Communications (2025)

"Antibody-Based Antigen Delivery to Dendritic Cells as a Vaccination Strategy Against Ebola Virus Disease"

Olal et al., The Journal of Infectious Diseases (2025)

"mRNA-LNP Vaccine Strategies: Effects of Adjuvants on Non-parenchymal Liver Cells and Tolerance"

Svensson et al., Methods & Clinical Development (2025)

"Intranasal recombinant protein subunit vaccine targeting TLR3 induces respiratory tract IgA and CD8 T cell responses and protects against respiratory virus infection"

Wörzner et al., eBioMedicine (2025)

PepMix™ Peptide Pools

JPT's peptide pools are synthetic peptide pools containing overlapping peptide scans through antigens or selected MHC restricted epitopes. They are used to stimulate antigen-specific T cells in vaccine development, cell and immunotherapy, and for immune monitoring.

Applications

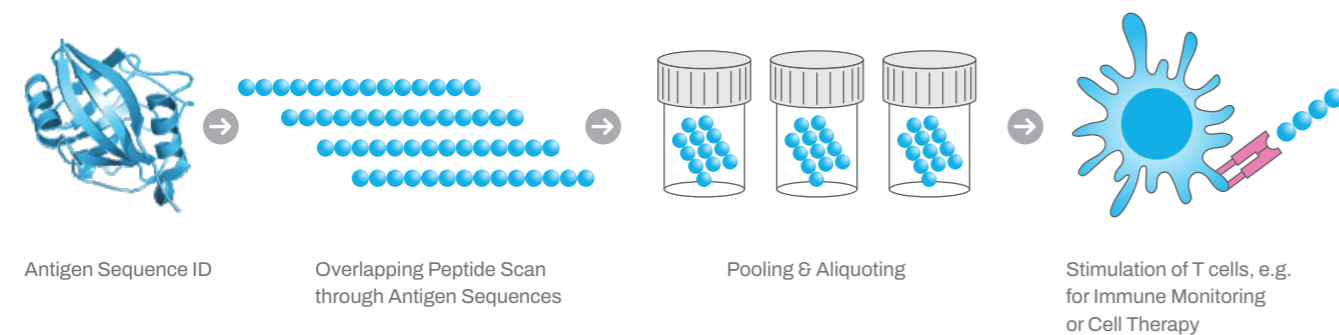
Efficient in vitro stimulation of antigen-specific CD4+ and CD8+ T cell for

- Immune monitoring
- Vaccine efficacy testing
- Cell therapy approaches
- Positive and negative controls
- Vaccine target identification
- T cell epitope mapping
- Standardization of T cell assays

Benefits ✓

- Produced under stringent quality management
- Individual peptides are controlled for identity and purity
- CoA and HPLC-MS data available for each individual peptide
- High batch-to-batch consistency
- No false positive T cell responses by contaminating deletion peptides
- No toxic inhibition of T cell responses due to purification of each peptide
- Low bioburden process
- ADCF policy

Production and use of PepMix™ Peptide Pools. Peptides are synthesized, purified and pooled according to a validated pooling method ensuring presence of all the peptides in the mix.



Selected References

" TGFβ links EBV to multisystem inflammatory syndrome in children"

Goetzke et al., Nature (2025)

" RBD-depleted SARS-CoV-2 spike generates protective immunity in cynomolgus macaques"

Emmelot et al., NPJ Vaccines (2025)

" Systemic immunomodulation by irreversible electroporation versus stereotactic ablative body radiotherapy in locally advanced pancreatic cancer: the CROSSFIRE trial"

Geboers et al., Journal for ImmunoTherapy of Cancer (2025)

" Autogene cevumeran with or without atezolizumab in advanced solid tumors: a phase 1 trial"

Lopez et al., Nature Medicine (2025)

Custom Peptide Pools

We produce peptide pools using two different technologies. The first is the classical PepMix™ technology, which has a scale starting from 1 mg/peptide and a purity ranging from crude to greater than 95%. This technology offers a flexible pooling format.

The SpotMix technology is low cost and small scale (nmol) and is purified by dialysis only.

Catalog Peptide Pools

- Proteins from infectious organisms: from AAV to ZIKV, more than 50 organisms
- Tumor Associated Antigens: from ACTL8 to WT1
- Positive & Negative Controls: CEFX, CEFT, CEF, pp65
- Epitope Mapping Peptide Sets: convenient sets of matrix pools with individual peptides
- Pan Select and Ultra Pools: pool layouts for specific applications
- PepMix™ Collections: convenient sets of related PepMixes™



Check our full and up-to-date list

Is your antigen not available? Do you need a special specification? We produce custom PepMixes™ tailored to your needs!

Contact our support team at peptide@jpt.com

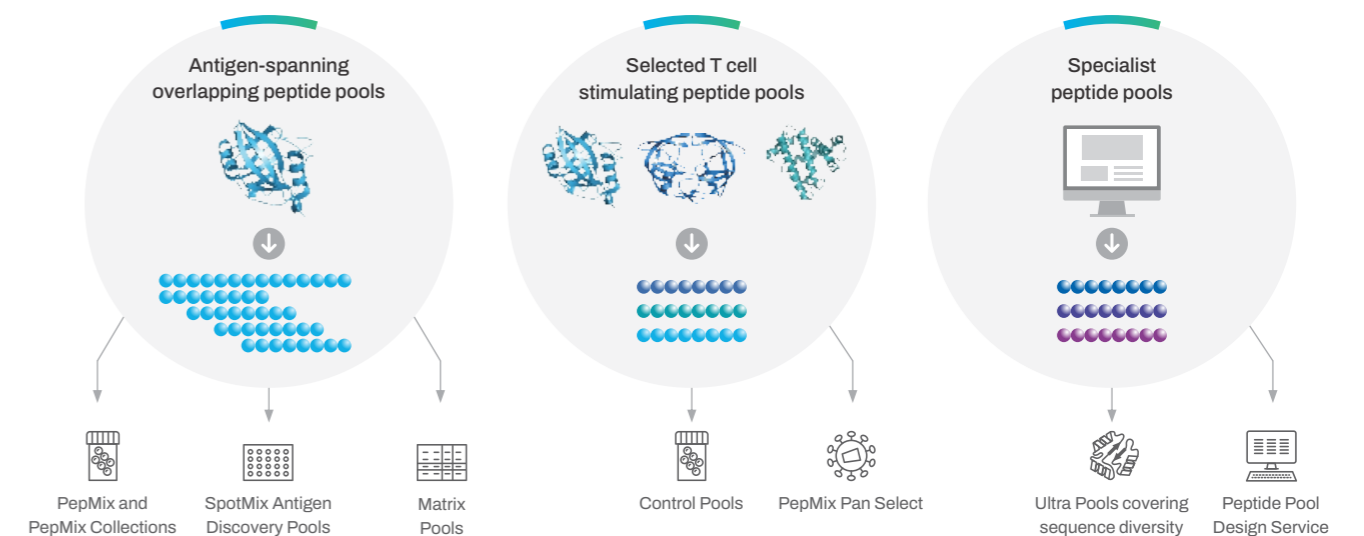


[...] we utilised the CEF Pool (extended) as well as a custom synthesized PepMix spanning the core region of HBV genotype D. [...] Our entire experience with JPT, from ordering/delivery to use in the lab was excellent. [...] JPT will remain our "go-to" company for purchasing peptides.



L. Pallett, Infection and Immunity, University College London, UK

Peptide Pool Formats



PepTrack Peptide Libraries

We offer tailored PepTrack peptide libraries of immunogenic or antigenic peptides with flexible specifications. To avoid false positives or toxic inhibition of T cells, we defined specific parameters for synthesis, purification and analysis.

Applications

- Immune monitoring by ELISpot
- T cell epitope discovery, mapping & validation
- Peptide vaccine & development
- Optimization and validation of T cell assays
- Translation of NGS results into neo epitope libraries
- Vaccine efficacy testing
- Immunotherapy
- Biological screening

Benefits

- Flexible peptide libraries tailored for cellular assays
- Protocols to avoid toxic inhibition or de novo epitopes
- Aliquotation, pooling and advanced QC upon request
- Post-Translational Modifications (PTMs) available
- Proven track record for application in clinical studies

PepTrack Peptide Libraries are delivered freeze-dried in multiwell plates or tube racks (micronics).



Selected References

"Salivary proteomics and metaproteomics identifies distinct molecular and taxonomic signatures of type-2 diabetes"

Samodova et al., Microbiome (2025)

"Evaluation of three novel antigens and costimulatory agents for improvement of M. Tuberculosis specific interferon gamma release assays"

Schwarzlose-Schwarck et al., BMC Infectious Diseases (2025)

"STIC2 selectively binds ribosome-nascent chain complexes in the cotranslational sorting of Arabidopsis thylakoid proteins"

Stolle et al., EMBO Journal (2024)



For reliable monitoring of tumor and virus specific T cell responses, we have a permanent need for peptides and peptide pools that are produced in a regulated environment for application in a clinical environment. JPT has been a long term and dedicated partner in this regard which continuously works on improving its peptide based services.



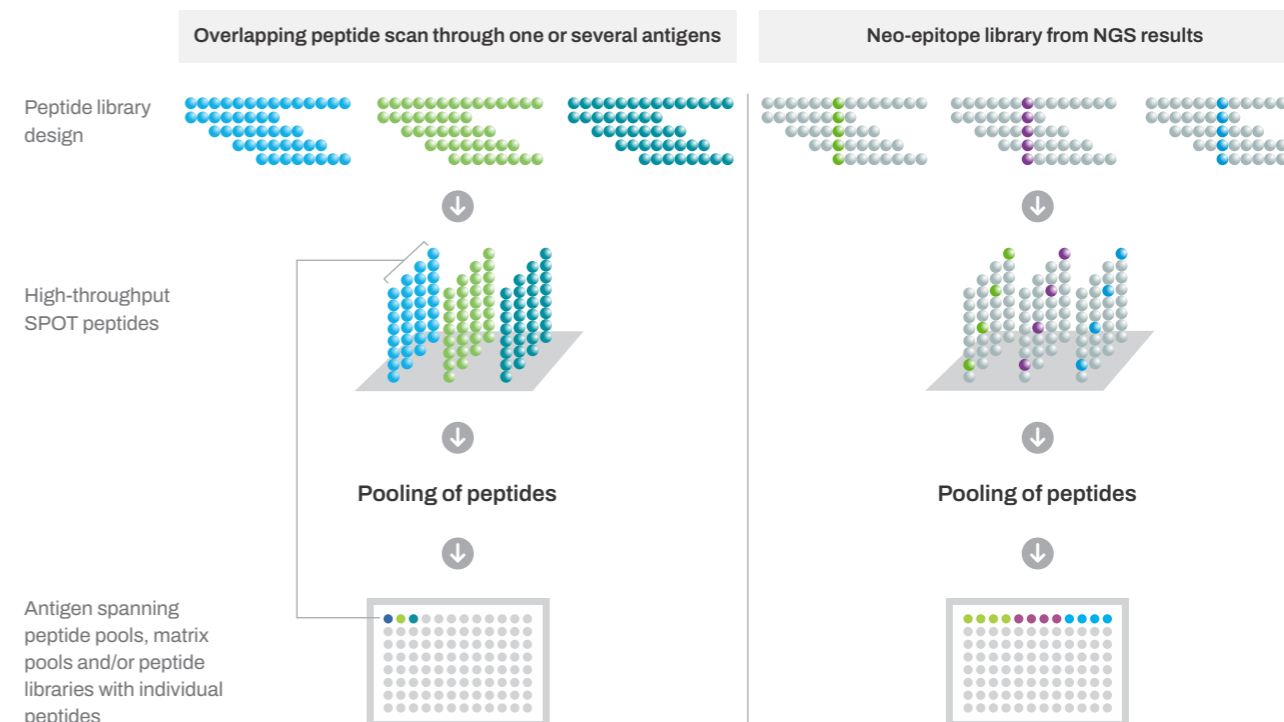
C. Scheibenbogen, Charité Berlin, Berlin, Germany

PepTrack Options

	Purity	QC	Scale	Applications
Fast Track	Unpurified	Statistical LC-MS (5%)	10 -50 µg	<ul style="list-style-type: none"> • Neo-epitope prioritization • Antigen target identification • Pathogen-spanning T cell epitope discovery
Fast Track PLUS	Unpurified	LC-MS for each peptide	10 -50 µg	<ul style="list-style-type: none"> • Neo-epitope prioritization • Target identification • Biological screening
Research Track	Unpurified (each peptide detectable by LC-MS or MALDI-MS)	LC-MS for each peptide	1-4 mg or 5-10 mg	<ul style="list-style-type: none"> • T cell epitope discovery • Immunogenicity testing • Identification of immunodominant antigens
Research Track PLUS	Unpurified (Major product component is guaranteed to be peptide of interest)	LC-MS for each peptide	1-4 mg or 5-10 mg	<ul style="list-style-type: none"> • T cell epitope discovery • Target identification • Biological screening
Development Track	> 70 %	LC-MS for each peptide	1-4 mg or 5-10 mg	<ul style="list-style-type: none"> • Immune monitoring • T cell epitope mapping
Trial Track	> 80 % > 90 % > 95 % > 97 %	LC-MS for each peptide	1-4 mg or 5-10 mg	<ul style="list-style-type: none"> • Clinical Immune monitoring • Development of immunotherapy

Please inquire for larger scales and further options!

Provision of high-content Fast Track peptide libraries or SpotMix antigen discovery pools by SPOT technology.



Pre-GMP & Clinical Peptides

Our enhanced clinical peptide manufacturing environment meets the stringent product requirements for clinical trial immune monitoring and the development of vaccines or therapies. The resulting Clinical Grade & ISO Plus Peptides have been approved for several clinical trials in immuno and cellular therapy.

Why choose JPT?

- Scientific experience
- Full analytical documentation (CoA, batch documentation, CMC & IND support)
- Audits welcome!
- Publication record of clinical trials using JPT

Quality Assurance and Control

- Line clearance
- Full traceability
- Vendor qualification
- QC/QA documentation
- Batch release control
- LIMS, document management & CRM

Optional Chemical Analyses

- Residual solvent determination
- Water determination
- Peptide content determination
- Amino acid analysis
- UPLC measurement
- Stability and solubility testing
- Peptide sequencing

Optional Microbiological Analyses

- Bacterial endotoxin determination
- Sterility testing
- Bioburden determination
- Bacteriostatic and fungistatic effect of products

Selected References

“Rapid single-cell identification of Epstein-Barr virus-specific T cell receptors for cellular therapy”

Lammoglia Cobo et al., *Cytotherapy* (2022)

“Designing Personalized Antigen-Specific Immunotherapies for Autoimmune Diseases – The Case for Using Ignored Target Cell Antigen Determinants”

Tian et al., *Cells* (2022)

“Generation of glucocorticoid-resistant SARS-CoV-2 T cells for adoptive cell therapy”

Basar et al., *Cell Reports* (2021)

“Clinical effects of administering leukemia-specific donor T cells to patients with AML/MDS post-allogeneic transplant”

Lulla et al., *Blood* (2021)

“Profiling SARS-CoV-2 HLA-I peptidome reveals T cell epitopes from out-of-frame ORFs”

Weingarten-Gabbay et al., *Cell* (2021)



We recently demonstrated the feasibility and clinical benefit associated with the infusion of rapidly generated single-culture VSTs manufactured using JPT's Clinical Grade PepMix™ Peptide Pools covering 12 immunogenic antigens from five viruses (EBV, AdV, CMV, BK, and HHV6). When administered to 11 allogeneic stem cell transplant recipients, 8 of whom had up to four active infections, these VSTs produced an overall 94 % response rate.

A. M. Leen, Baylor College of Medicine, Houston, TX, USA

JPT's Peptide Quality Levels

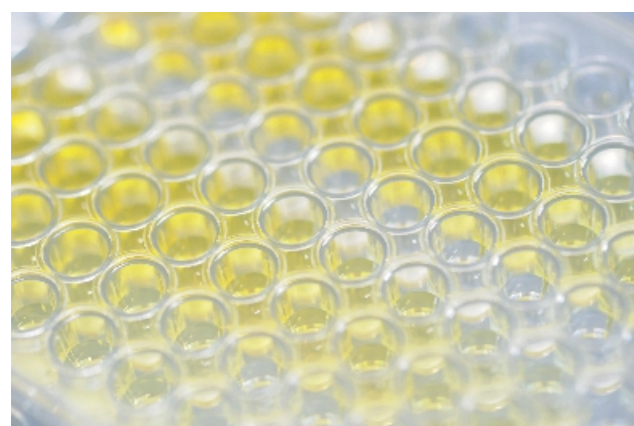
Specification	RUO	ISO PLUS	Clinical Grade
Applications	Target/Epitope Discovery & Immune Monitoring	Clinical Immune Monitoring & Immune Diagnostics	Immuno- & Cell Therapy
Incoming Material Inspection	X	X	X
Dedicated Raw Materials			X
Vendor Qualification	X	X	X
Order-Dedicated Personnel			X
ADCF Policy	X	X	X
Certificate of Analysis	X	X	X
Document Management & LIM-Systems	X	X	X
Documented Cleaning & Calibration			X
CMC: Batch Documentation & CoA based on IND Requirements		X	X
Line Clearance		X	X*
Optional: Certified Vials	X	X	X
Optional: Impurity ID & Qualification	report only	report only	report only
Optional Services: Residual Solvents; Sterility, Endotoxin; Monitored Storage...	X	X	X

* spatial separation of processes



Custom & Modified Peptides

The exceptional quality and reliability of our service has been appreciated by customers worldwide for many years. JPT is a leading supplier of custom peptides and specialty peptides, such as phosphopeptides, immunogenic peptides, cyclic peptides, or peptide conjugates.



Options and Modifications

- Fluorescent and chromogenic peptides
- Internally quenched peptides (Abz/nitroTyr, EDANS/DABCYL, MCA/DNP)
- Immunogenic peptides (MAPs, palmitoylation, Pam3Cys labeling, etc.)
- Phospho-peptides and peptidomimetics (amide bond isosteres, non-natural amino acids, etc.)
- Non-commercial building blocks available
- Labeling (non-radioactive isotopes, chromophores, etc.)
- Site-directed conjugations with KLH, BSA, ovalbumin or other carriers
- Cyclic peptides (disulfide bridges, lactams, thioether-bridges, etc.)

Benefits of JPT's Custom Peptides ✓

- Largest manufacturing capacities, up to 1 million peptides per year
- Single order to FTE long term contracts
- Reliable and stringent QC/QA
- Large variety of chemistry protocols
- Fully automated pooling, aliquoting and vialing processes
- Solubility, stability and sterility testing optional
- Personal consultation with experienced scientists
- Full range of analyses including LC-MS (trap and/or quad), MALDI-MS, HPLC, AAA, NMR, CE, UPLC, HR-MS, as well as peptide content determination to confirm the identity and demonstrate the high quality of our peptides
- Substantial, long-standing expertise in providing custom peptides
- Highly skilled and committed scientific staff

Need other modifications or specifications?
We will give our best to make it happen!
Contact us at peptide@jpt.com

Specifications

- Scales ranging from nmol to grams
- Peptide length up to 50 aa in routine
- Purities from crude to >95%
- Flexible aliquotation & pooling

Quality Assurance

- JPT's entire peptide production, purification and analysis procedures are backed by a stringent and certified Quality Management System
- All quality relevant processes are well documented and regulated according to a comprehensive SOP system
- All peptide production is performed at JPT's headquarters in Berlin, Germany under continuous quality measures
- All peptides assembled from components that are of non-animal origin (ADCF)

Selected References

"Autogene cevumeran with or without atezolizumab in advanced solid tumors: a phase 1 trial"
Lopez et al., Nature Medicine (2025)

"Exploring the role of ESR1 mutations in metastatic hormone receptor-positive breast cancer T cell immune surveillance disruption"
Lopez et al., Breast Cancer Research (2025)

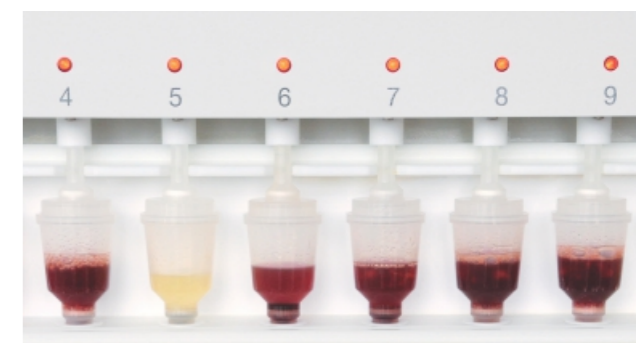
"Assembly of the Xrn2/Rat1-Rai1-Rtt103 termination complexes in mesophilic and thermophilic organisms"
Dikunova et al., Structure (2024)

“

Our research relies heavily on developing robust high-throughput screens with fluorescent peptides. We have found that JPT's are the best on the market because the signal-to-noise ratio is very high, providing the sensitivity we need for the screens. Their peptides always perform well. In addition, the knowledge, wonderful customer support, and fast turnaround time provided by JPT have been invaluable in helping us develop the best peptides for our assays. ”

Carla Koehler, Professor, UCLA, Chemistry & Biochemistry, Los Angeles, CA

Automated synthesis allows a large variety of scales and chemistries.



ELISpot Services

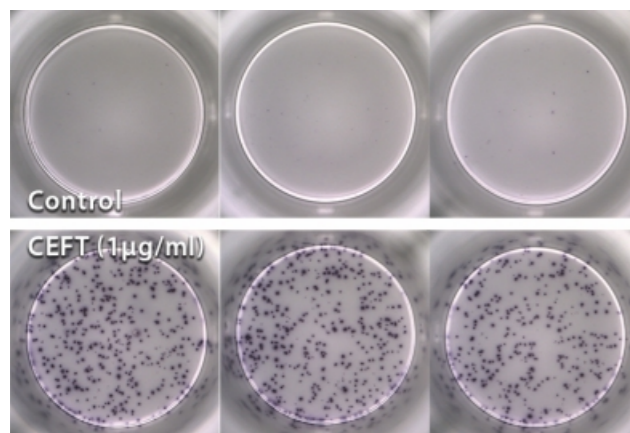
JPT Peptide Technologies offers an ELISpot assay service. Our comprehensive service ranges from early project design to troubleshooting, and are performed by our scientists in our state-of-the-art laboratories in Berlin, Germany. You simply send your sample and receive a comprehensive report data and data evaluation.

Our Service Includes

- Assistance with target protein/subunit selection
- Intelligent sequence analysis/bioinformatics
- Peptide library design including the coverage of known sequence variations
- Peptide synthesis, peptide pooling, matrix pool design & plating
- T cell assays (e.g. ELISpot, MHC multimer staining and others)
- Final report/data summary

Benefits

- Reliable and robust workflows
- All-in-one service
- Stringent quality control
- Competitive pricing
- In an ELISpot proficiency panel, JPT performed in the top 5 among 35 established labs.



Take a look and request a quote!

We offer comprehensive T cell assay services.

Immobilized Peptides

Our peptide tools and services to study humoral immunity range from PepStar™ Peptide Microarrays and PepSpot Arrays to Peptide ELISA. The reliability of these peptide tools allows not only the differential analysis of biological samples for immune profiling and epitope identification but also for antibody generation and mimotope optimization at high efficiency.

Let's talk about peptide arrays!

Peptide or Protein Arrays



Epitope discovery and analysis of epitope spreading are only possible on peptide level. Additionally, short peptide binders enable development of robust diagnostic tests.

Sample Consumption



Only tiny amounts of your precious samples are needed for incubation. Our microarrays are applicable to serum, blood or cell lysate as well as purified antibodies or proteins.

Batch-to-Batch Consistency



A single synthesis batch yields in hundreds of identical microarrays. All peptides have the same flexible orientation due to a directed immobilization to the slide surface.

Validation of Identified Seromarkers



Use our Peptide ELISA platform as a robust tool to confirm and validate protein-protein interactions such as antibody-epitope binding.

Peptide Purity

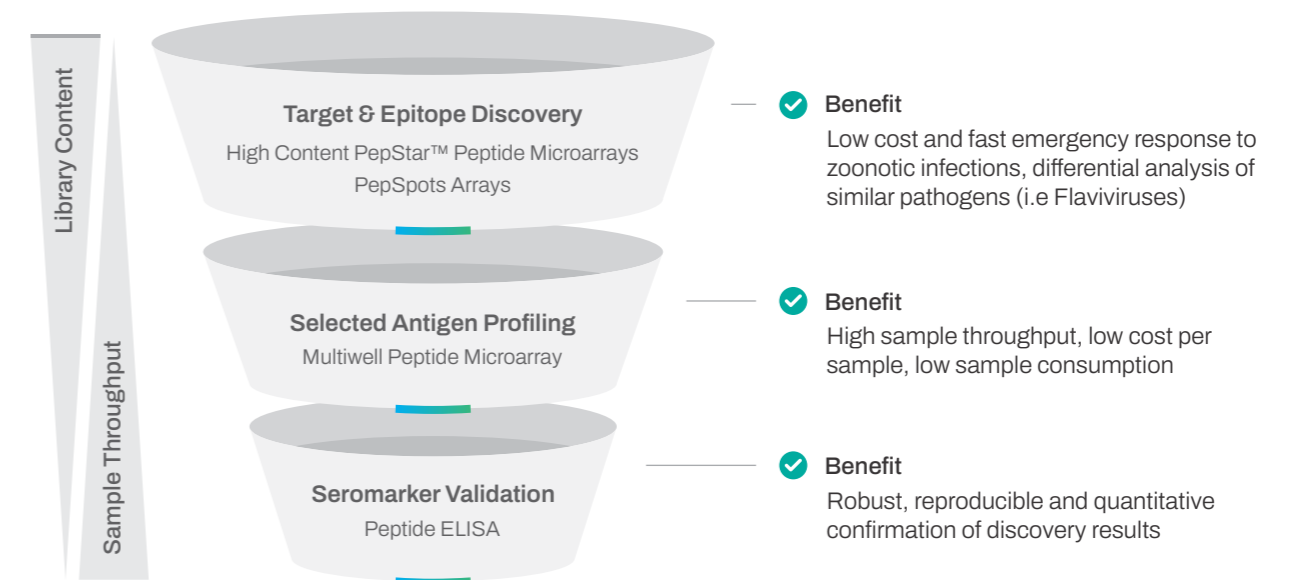


Our proprietary PepStar™ technology includes a purification step for each peptide. Our process avoids formation of deletion sequences that are a source for false positive results.

Sequence Diversity and PTMs



We address sequence diversity as found in cancers and viruses by combining our bioinformatic ULTRA approach with advanced chemistry protocols to assemble peptide libraries and arrays.



PepStar™ Peptide Microarrays

Our unique PepStar™ Peptide Microarrays are used for target discovery, immune monitoring, antibody epitope mapping, multiplexed epitope mapping or for detection and validation of protein-protein interactions.

What are PepStar™ Peptide Microarrays?

Large numbers (up to 21 000) of peptides are immobilized onto glass slides. Incubation can be performed with proteins and patient samples. Read-out is achieved by fluorescence using validated protocols and commercial equipment.

Applications

- Target discovery
- Seromarker identification and validation
- Multiplexed immune monitoring in clinical trials
- Elucidation of antigen and epitope spreading
- Mapping of immunodominant regions
- QC /QA of therapeutic biologics

Benefits ✓

- Hundreds of identical microarrays from a single synthesis batch
- High shelf stability
- High assay sensitivity
- Defined post-translational modifications are possible
- Low consumption of patient materials and proteins



From Customized to Off-the-shelf

- Proteins from infections – from BKV to YF, more than 20 organisms
- Tumor Associated Antigens – from CEA to Wt1, more than 90 TAAs
- Antigen Collections – from BKV to ZIKV



Check our full and up-to-date list

Selected References

“Purification and Epitope Mapping of Jug r 4, a Major Walnut Allergen”

Gipson et al., Allergies (2025)

“Affinity maturation and optimization of CD44v6-targeting antibodies for molecular radiotherapy”

Lungren Mortensen et al., Nuclear Medicine and Biology (2025)

“A Pentavalent HIV-1 Subtype C Vaccine Containing Computationally Selected gp120 Strains Improves the Breadth of V1V2 Region Responses”

Shen et al., Vaccines (2025)

“Suppression of Type I Interferon Signaling in Myeloid Cells by Autoantibodies in Severe COVID-19 Patients”

Aoki et al., Journal of Clinical Immunology (2024)

PepSpots Peptide Arrays

Your customized membrane-based peptide array could display peptide scans through antigens, random peptides, positional-, alanine-, D-amino acid scans, or truncation libraries.

What are PepSpots?

Peptides are synthesized on a cellulose membrane, c-terminally attached via a flexible linker. The membrane can be used directly for incubation with antibodies or other proteins and read-out via chemiluminescence. Membranes are delivered with a detailed application protocol.

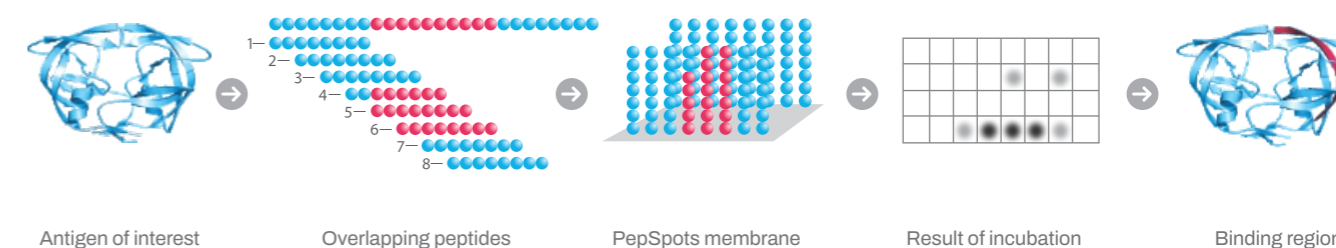
Applications

- Antibody epitope mapping and characterization
- Characterization of protein-protein interactions
- Systematic optimization of peptide lead structures

Benefits ✓

- Standard equipment and protocols are applicable
- Rapid, economical, and flexible synthesis of any set of peptides
- Hydrophilic cellulose membranes minimize unspecific interactions

For a typical order we synthesize overlapping peptides of your protein of interest on cellulose membranes. Resulting PepSpots membranes can be incubated with your sample and the binding region is detected by chemiluminescence read-out.



Selected References

“Linear epitope mapping of the humoral response against SARS-CoV-2 in two independent African cohorts”

Vigan-Womas et al., Scientific Reports (2023)

“Human antibody profiling technologies for autoimmune disease”

Carlton et al., Immunologic Research (2023)

“A Group of Infection-Enhancing and Focus Size-Reducing Monoclonal Antibodies Recognized an ‘a and c’ Strands Epitope in the pr Domain of Dengue Virus prM”

Keelapang et al., Virus Research (2022)

“Mechanistic basis of the increased methylation activity of the SETD2 protein lysine methyltransferase towards a designed super substrate peptide”

Schnee et al., Communications Chemistry (2022)

“Mass spectrometry-based draft of the mouse proteome”

Giansanti et al., Nature Methods (2022)

“Immunoinformatic Epitope Prediction to Select Monoclonal Antibodies for PhI p 1 Quantification”

Azahara Gonzalez-Ruiz et al., Mol Immunology (2022)

Peptide ELISA

Enzyme-linked immunosorbent assay (ELISA) is a common analytical and highly sensitive immunological assay classically performed with proteins. Peptide ELISA is of additional value, because it enables analysis at the amino acid sequence level, e.g. mapping of epitopes or delineation of protein interaction sites.

What is Peptide ELISA?

Peptide ELISA is an economic and tailored ELISA platform. Peptides are synthesized according to your specifications and coated onto ELISA plates. This is a highly flexible assay, as you can select the peptide sequences, the number of peptides, the purity and the plate format.

Applications

- Antibody epitope mapping
- Immune profiling
- Determination of antibody titers
- Analysis of protein-protein interactions
- Validation of microarray results

Selected References

"Antibody landscape of C57BL/6 mice cured of B78 melanoma via immunotherapy"

Hoefges et al., BioRxiv (2023)

"Characterization of surface-exposed structural loops as insertion sites for foreign antigen delivery in calicivirus-derived VLP platform"

Panasiuk et al., Frontiers in Microbiology (2023)

"Cross-reactive CD4+ T cells enhance SARS-CoV-2 immune responses upon infection and vaccination"

Loyal et al., Science (2021)

Benefits ✓

- High batch-to-batch reproducibility
- Economic production of tailored ELISA plates
- Easy-to-use and compatible with standard ELISA protocols and equipment
- Generation of quantitative results
- High sensitivity
- Directed immobilization of purified peptides for reproducible results



Check our different ELISA options



Microarray & ELISA Assay Services

We provide comprehensive, modular seromarker and antibody profiling workflow. This ranges from high-resolution epitope discovery and verification of identified epitopes using large sample cohorts, to validation of results using robust, well-established assay systems.

Benefits ✓

- Modular workflow allows efficient and tailored planning of projects
- All processes controlled, validated and regulated
- Each module optimized for specific purpose
- Experienced and dedicated team of scientists
- Assays compatible with antibodies, sera, whole blood, and other fluids that contain antibodies

Workflow & Applications

- **Module I – Discovery:** High resolution epitope discovery (selection of relevant peptides from thousands of candidate peptides)
- **Module II – Verification:** Selective antigen profiling (verification of candidate peptides for a significant number of samples)
- **Module III – Validation:** Marker validation (validation of peptides in secondary assay)

Book modules individually or combine them as needed.

Our Service Includes

- Finding the optimal strategy for your project
- Help to design peptide sequences
- Production of PepStar™ high content peptide microarrays, PepStar™ Multiwell peptide microarrays and/or peptide ELISA plates
- Screening and control experiments using your samples
- JPT's biologists and computer scientists will perform data evaluation and analysis

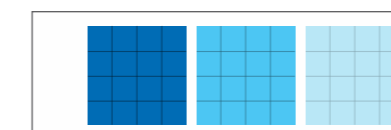
Our Reporting Includes

- Experiment description
- Data evaluation and analysis
- Data visualization
- Description of results
- Data file with raw-data used
- Reporting format can be adjusted to your needs

The three modules of our service vary in complexity and can be used individually or combined according to your project plans.

Peptide Microarray

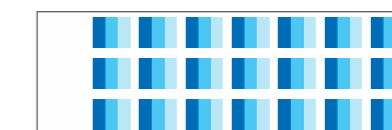
High Content:
6912 peptides in 3 copies/sample



Multiplexed Epitope Discovery

Peptide Microarray

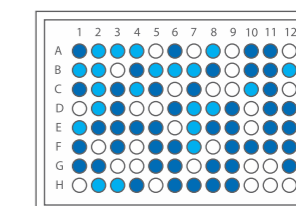
Multiwell:
192 peptides in 3 copies/21 samples



Selective Antigen Profiling

Peptide ELISA

1-96 peptides/samples



Marker Validation

BioTides Biotinylated Peptides

Biotinylated peptides for your biomedical assays using streptavidin coated beads, membranes, glass slides or microtiter plates.

What are BioTides?

BioTides are custom synthesized inexpensive sets of small scale biotinylated peptides. Thousands of BioTides are available within days.

- Amounts of 50 – 2500 nmol per peptide
- Peptide length up to 20 aa
- Ready-to-use soluble peptides in 96- or 384-well plates delivered freeze dried

Applications

- Identification and optimization of kinase-, phosphatase-, acetyltransferase- and histone deacetylase-substrates via standard screening systems (AlphaScreen, FlashPlates, SPA-Beads, Luminex and many more)
- Mapping of protein/protein interaction sites
- Peptide ELISA assays
- Production of peptide microarrays
- Loading of columns for affinity chromatography

Your BioTides will be delivered in 96-well plates with detailed documentation and QC / QA report.



Selected References

"Therapeutic treatment of hepatitis E virus infection in pigs with a neutralizing monoclonal antibody"

Hrabal et al., Scientific Reports (2025)

"A foldon-free prefusion F trimer vaccine for respiratory syncytial virus to reduce off-target immune responses"

Bakkers et al., Nature Microbiology (2024)

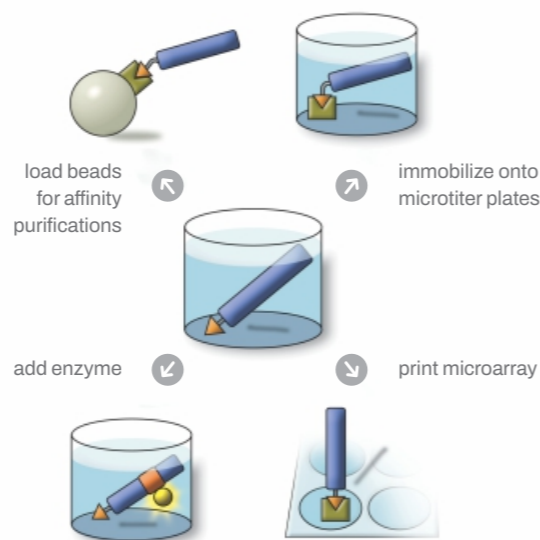
"Defining the cross-reactivity between peanut allergens Ara h 2 and Ara h 6 using monoclonal antibodies"

Marini-Rapoport et al., Clinical & Experimental Immunology (2024)

Benefits ✓

- Thousands of unpurified biotinylated peptides for screening and peptide array production
- Unmatched turnaround times (10 000 peptides per week!)
- Delivery in ready-to-use microtiter plates
- Lowest price in the industry due to patented technology
- Complete QC (LC-MS, MALDI etc.) and aliquotation service available

Use of BioTides for binding and enzymatic assays.



Do you have questions about our products? Can we help you select the best peptide specifications? Please contact our customer support, our technical support teams in Europe and North America or a distributor in your country.

Contact our customer support or technical support teams at any time!

Customer Support

Our customer support team has years of scientific experience, service-oriented skills, and responds quickly. Please do not hesitate to contact us for information. We also very much welcome your feedback and comments.

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Technical Support Europe

peptide@jpt.com

Do you have a question about using peptides for a specific application? Would you like to discuss a project or peptide specifications for your project? We are here to assist you in the various steps of your project. We speak English, French, and German.



Technical Support North America

us-bd@jpt.com

We can assist you not only with the sales process, but also with technical support based on our experience in peptide science and applications such as project development, and experimental design. We speak English, French, and Spanish.



Distributors

Connect with our distributor in your country. Check our website for contact details.



We pride ourselves on our competent service and swift response. Please do not hesitate to contact us for more information. We also welcome your feedback and comments.

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