A Disruptive New Technology for Cancer Research!

Only PEPperPRINT's unique peptide microarray platform enables you to

- ✓ translate cancer point mutations into cancer peptide microarrays to identify immunogenic epitopes for immunotherapy
- ✓ order custom microarrays with up to 35,500 high fidelity peptides
- ✓ reliably receive your custom peptide microarrays within 3-5 weeks
- ✓ adjust your microarray from chip to chip and obtain rapid readouts
- ✓ benefit from the highest signal-to-noise ratios available
- ✓ cover protein conformations and posttranslational modifications

Here are some examples of PEPperPRINT's cancer research applications:

- High-resolution epitope mappings of cancer immunotherapy antibodies for a leading pharma company
- Identification of a prognostic glioblastoma biomarker for a world-class research institute
- Screening platform for the discovery of cancer-specific antibodies in patient sera for a top 10 pharma company

What our customers say:

"Applying innovative printed peptide microarrays we successfully developed the first TAA-based non-invasive immune assay for glioblastoma patients. (…) The cost-effective miniature format and the extremely low sample volume further underline the great promise of this analytical workflow to monitor the immune response of patients within clinical studies."

A. Mock and C. Herold-Mende: Non-invasive glioblastoma immunoprofiling by printed peptide arrays. OncoImmunology, 2015

"Our results suggest that anti-ERα Abs can act as estrogen agonists playing a pathogenetic role as breast cancer-promoting factors. These autoantibodies could also be considered as possible peripheral blood biomarkers indicative of the breast cancer growth potential. (…)To identify the epitopes recognized by anti-ERα Abs, we performed aPEPperMAP® Epitope Mapping (PEPperPRINT) of human affinity purified anti-ERα Abs against ERα. (…) [and] defined the main reactive epitope (…) into the ligand binding domain."

A. Maselli et al.: Autoantibodies specific to estrogen receptor alpha act as estrogen agonists and their levels correlate with breast cancer cell proliferation. OncoImmunology, 2015

"We worked with PEPperPRINT to identify key epitopes associated with an immune response in breast cancer. The experience was excellent throughout the process. We were able to get answers for all of our technical questions as well as receive important feedback during data analysis. I look forward to working with PEPperPRINT in future projects and clinical trials."

Eda Holl, Ph.D., Assistant Professor of Surgery, Duke University School of Medicine

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Our **disruptive PEPperCHIP® Peptide Microarray** technology offers a variety of solutions for cancer research:

PEPperCHIP® Tumor Antigen Microarray

- covers 22 selected tumor antigens like p53, NY-ESO-1 or SOX-2 as overlapping peptides
- 4,319 different antigen-derived peptides for full cancer epitope coverage

► **multiplexed and isotype-specific epitope mappings against general tumor antigens**

PEPperCHIP® Melanoma Antigen Microarray

- covers 21 selected melanoma antigens like MAGE 1, 2, 3, 4, MUC18 or p53 as overlapping peptides
- 4,125 different antigen-derived peptides for full cancer epitope coverage

► **analysis of melanoma-specific antibody responses in patient serum**

Custom PEPperCHIP® Tumor Antigen/Epitope Microarray

- covers any tumor-related epitope or antigen collection for cancer patient antibody profiling
- up to 5,500 (standard microarrays) or 35,500 (discovery microarrays) different peptides per assay

► **epitope discovery and high-throughput cohort screening of patient serum e.g. in clinical trials**

PEPperCHIP® Oncovirus Epitope Microarray

- covers 3,653 linear B-cell epitopes of human oncoviruses including 7 citrullinated peptides
- includes epitopes of hepatitis B and C viruses, human herpesviruses 1, 2, 4 and 5, human papillomavirus, JC polyomavirus, Human t-lymphotropic virus 1 and many more

► **multiplexed screening of anti-oncovirus antibody responses in patient serum**

PEPperMAP® High Resolution Epitope Mapping

- PEPperMAP® Linear Epitope Mapping with maximum peptide-peptide overlap
- PEPperMAP® Conformational Epitope Mapping with cyclic constrained peptides
- Epitope Substitution Scans for discovery of conserved and variable amino acids

► **tumor-antigen epitope mapping and fingerprint analysis**

Synthetic Peptides and Peptide Pools

- custom peptides and peptide pools with various QC levels, modifications and amounts

► **synthetic peptides and peptide pools for T cell stimulation, ELISA tests, competition assays, immunizations, affinity purification, IVD or CDx development and various other applications**

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