

Comprehensive Protein & Peptide Microarray Solutions

Explore immunogenic targets with the combined power of HuProt™ and PEPperCHIP® Microarrays

Streamline your research in different applications



Antibody Validation

Step 1: Screen for protein hits with HuProt™ Human Proteome Microarrays

Step 2: Identify antibody epitopes and characterize binding specificity with PEPperCHIP® Peptide Microarrays



Autoantigen Identification

Step 1: Discovery with the HuProt™ Human Proteome Microarray

Step 2: Autoantibody epitope mapping with PEPperCHIP® Peptide Microarrays



Cross-reactivity Analysis

Step 1: Cross-reactivity screening against 21,000+ proteins with the HuProt™ Human Proteome Microarray

Step 2: Fine mapping and subsequent substitution scans with PEPperCHIP® Peptide Microarrays

FEATURES AND SPECIFICATIONS

	HuProt™ Human Proteome Microarray	PEPperCHIP® Peptide Microarrays
Microarray content	21,000+ full-length, correctly-folded human proteins and isoform variants	Multiple antigens converted into up to 75,000 overlapping peptides
Compatible samples	Serum or plasma from different species, antibodies (IgG, IgM, IgA, IgE, IgY...) or proteins	Serum or plasma from different species, antibodies (IgG, IgM, IgA, IgE, IgY...) or proteins
Sample material	Antibodies: 5 - 30 µg Serum or plasma: 10 - 50 µL	Antibodies: 5 - 20 µg Serum or plasma: 10 - 40 µL

PRODUCT DETAILS: HuProt™ Human Proteome Microarray

- **Most comprehensive collection of human proteins**

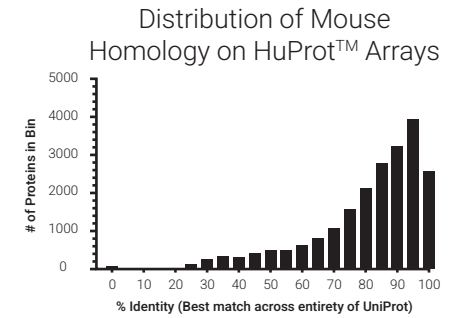
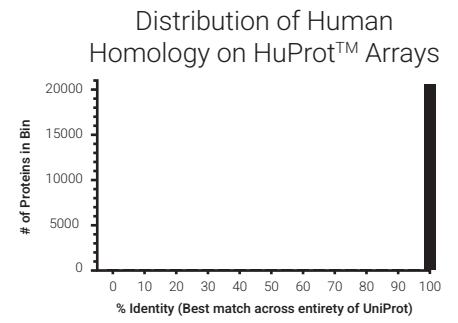
Covers 81% of human proteins in each major functional category of the proteome as defined by the Human Protein Atlas (Venkatarman et al., 2018)

- **Eukaryotic expression system**

Library created by inserting full-length human ORFs into a yeast high-copy expression vector, ensuring that proteins maintain both function and native conformation

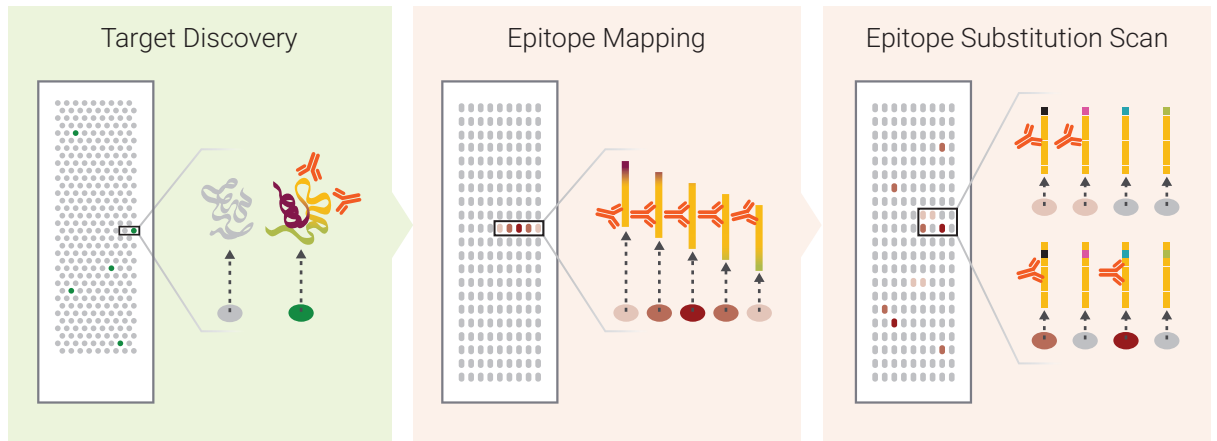
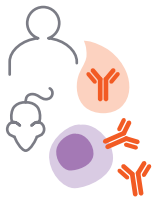
- **Thorough sequence validation**

Verification by Protein-Protein BLAST analysis confirms the collection to be primarily composed of full-length human proteins and isoforms, with high homology to mouse UniProt libraries



SAMPLE PROJECT WORKFLOW

Patient sera or antibodies



HuProt™ Human Proteome Microarray

PEPperCHIP® Peptide Microarrays


Integrated protein and peptide microarray analysis. Sera or antibodies are screened for protein targets using the HuProt™ Human Proteome Microarray covering over 21,000 full-length human proteins. Positive hit proteins are selected and, as an optional further analysis, may be printed as overlapping peptides on a PEPperCHIP® Peptide Microarray to perform a multiplexed epitope mapping with the same starting samples. An additional in-depth analysis of the identified epitope(s) with regards to essential, conserved, and variable amino acid positions can be performed through an Epitope Substitution Scan, in which each individual epitope amino acid is successively substituted by all other 20 natural amino acids.

How can we support your research?

Get in touch for a free project consultation with our experts

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