

PEPperCHIP® Infectious Disease Epitope Microarray

Features:

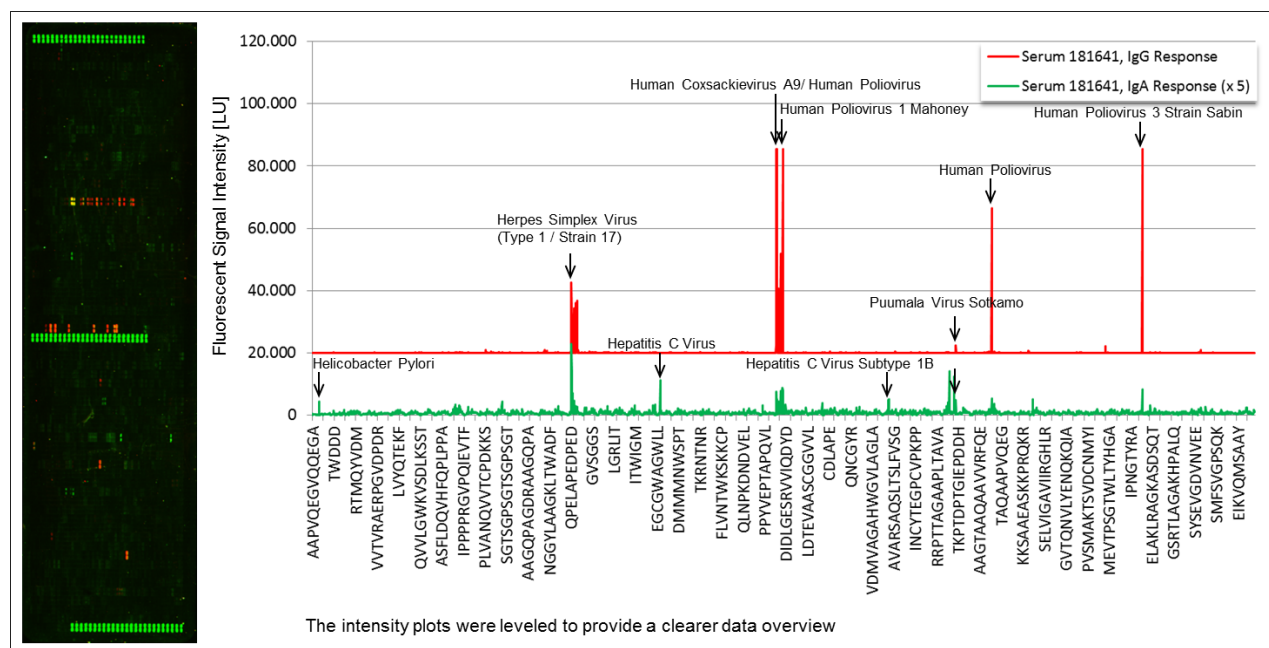
- 3,760 linear B-cell epitopes of 196 different bacterial, fungal, parasitic and viral pathogens
- sequence information obtained from Immune Epitope Database (<http://www.iedb.org/>)
- epitope length: 5 - 20 aa
- peptide length: 5 - 16 aa depending on the epitope length; longer epitopes were translated into overlapping 16 aa peptides
- sample requirements: 1 - 10 µl serum
- control peptides routinely incorporated as on-chip QC reference (e.g. HA epitope)

Applications:

- identification of unknown infections in patient sera
- discovery of hidden secondary infections
- correlation of autoimmune diseases with antibody responses raised by infections
- immune monitoring of patients before and after infections and immunizations
- multiplexed analysis of IgG, IgM and IgA antibody responses

Pathogens include e.g.:

- Borrelia Burgdorferi
- Candida Albicans
- Dengue Virus
- Helicobacter Pylori
- Hepatitis A/B/C/Delta and E Virus
- Herpes Simplex Virus
- Human Cocksackievirus
- Human Poliovirus
- Leishmania
- Mycobacterium Tuberculosis
- Plasmodium Falciparum
- Staphylococcus Aureus
- Toxoplasma Gondii
- Trypanosoma Cruzi
- West Nile Virus
- many more



PEPperCHIP® Standard Peptide Microarrays

For infectious disease research:

- Bacillus Anthracis Antigen Microarray
- BK Polyomavirus Antigen Microarray
- Chikungunya Virus Microarray
- Dengue Virus Type 1 Proteome Microarray
- Dengue Virus Type 2 Proteome Microarray
- Dengue Virus Type 2 Antigen Microarray
- Dengue Virus Type 3 Proteome Microarray
- Dengue Virus Type 4 Proteome Microarray
- Epstein-Barr Virus Antigen Microarray
- Foot-and-Mouth Disease Virus Proteome Microarray
- HBV L-Protein Pre-S and S Domain Microarray
- HCMV Antigen Microarray
- HCV Proteome Microarray
- HIV-1 Env gp160 Microarray
- Influenza Virus H1N1 Proteome Microarray
- Influenza Virus H5N1 Proteome Microarray
- MERS-CoV Proteome Microarray
- Mycobacterium Tuberculosis Antigen Microarray
- SARS-CoV Antigen Microarray
- Tetanus Toxin Microarray
- Tick-Borne Encephalitis Virus Proteome Microarray
- Trypanosoma Brucei Antigen Microarray
- Vaccinia Virus Antigen Microarray
- West Nile Virus Proteome Microarray
- Yellow Fever Virus Proteome Microarray

→ *containing whole proteomes or selected antigens translated into overlapping peptides*

For autoimmune research:

- Autoimmune Microarray 3.0
→ *4,287 linear B-cell epitopes associated with different autoimmune diseases*

For cancer research:

- Melanoma Antigen Microarray
→ *21 selected melanoma antigens as overlapping peptides*
- Tumor Antigen Microarray
→ *22 selected antigens as overlapping peptides*
- Oncovirus Epitope Microarray
→ *3,653 database-derived B-cell epitopes of human oncoviruses including 7 citrullinated peptides*

For antibody signature discovery:

- 5 different Signature Microarrays
→ *each containing 5,500 random peptides*