

# PEPperCHIP® Infectious Disease Microarray (Temperate Region Panel)

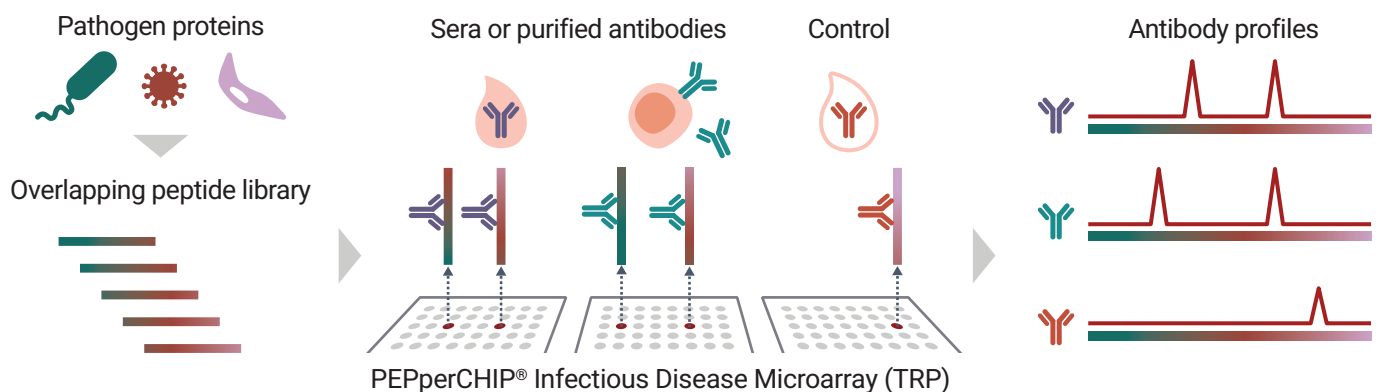
Profile antibody responses against 100+ pathogens. Map immunogenic hotspots in one single assay.

Infectious diseases are illnesses caused by bacteria, viruses, fungi, or parasites. Signs and symptoms may vary wildly depending on the organism causing the infection, ranging from mild fever and fatigue to life threatening conditions.

The PEPperCHIP® Infectious Disease Microarray (Temperate Region Panel) contains selected immunogenic peptides from over 100 different pathogens, which are also prevalent in temperate regions. Complementary panels focus on pathogens predominantly present in tropical and subtropical regions, enabling targeted profiling across diverse epidemiological settings. The Peptide microarray can be used to analyze antibody responses in patient sera as well as research and diagnostic antibodies on the epitope level.

## APPLICATIONS

- Antibody response profiling in patient sera in the context of vaccinations or infections
- Identification of potential diagnostic or prognostic epitope signatures
- Multiplexed antibody fingerprint analysis of patient sera
- Detection of cross-reactive antibody responses across pathogen groups
- Validation of research or diagnostic antibodies against pathogens



**Antibody fingerprinting workflow for infectious disease research with the PEPperCHIP® Infectious Disease Microarray (Temperate Region Panel).** Selected immunogenic peptides are converted into overlapping peptides and printed onto glass slides. Patient sera or antibody samples are incubated on the microarray, and antibodies present in the sample bind their corresponding epitopes on the microarray surface. The resulting antibody response profiles can be compared across different samples to identify and monitor antibody reactivity against over 100 pathogens for biomarker discovery, vaccine research, or IVD/CDx development.

## PRODUCT DETAILS: PEPperCHIP® Infectious Disease Microarray (Temperate Region Panel)

Microarray content 2,511 linear antibody epitopes of 106 different viral, bacterial, parasitic, and fungal pathogens from the Immune Epitope Database

### Bacteria

*Bordetella pertussis* (whooping cough)  
*Borrelia burgdorferi* (lyme disease)  
*Chlamydia pneumoniae* (pneumonia)  
*Chlamydia trachomatis* (chlamydiosis)  
*Escherichia coli* (dysentery)  
*Haemophilus influenzae* (meningitis, otitis)  
*Helicobacter pylori* (gastric/duodenal ulcer)  
*Mycobacterium tuberculosis* (tuberculosis)  
*Neisseria meningitidis* (meningococcal meningitis)  
*Orientia tsutsugamushi* (scrub typhus)  
*Salmonella enterica* (salmonellosis)

*Streptococcus pyogenes* (streptococcal pharyngitis)  
*Staphylococcus aureus* (skin infections)  
*Treponema pallidum* (syphilis)+

### Fungi

*Aspergillus fumigatus* (aspergillosis)  
*Candida albicans* (candidiasis)

### Parasites

*Echinococcus multilocularis* (echinococcosis)  
*Toxoplasma gondii* (toxoplasmosis)  
*Trichomonas vaginalis* (trichomoniasis)  
*Pythium insidiosum* (pythiosis)

### Viruses

*Group B coxsackieviruses* (pleurodynia, myocarditis, pericarditis)  
*Epstein-Barr virus* (mononucleosis)  
*Hepatitis A-E viruses* (hepatitis)  
*Human papillomavirus* (cervical cancer)  
*Human gammaherpesvirus 8* (Kaposi's sarcoma)  
*Influenza A virus* (influenza)  
*Measles virus* (measles)  
*Respiratory syncytial virus* (pneumonia, bronchiolitis)  
*Severe acute respiratory syndrome coronavirus 2* (COVID-19)

Peptide lengths 5 - 15 amino acids; peptide overlap of 13 amino acids for epitopes with more than 15 amino acids

No. of peptides 5,412 / 10,824 (peptides printed in duplicate)

Positive control HA (YPYDVPDYAG) and polio (KEVPALTAVETGAT) control peptides

## OTHER PEPperCHIP® PEPTIDE MICROARRAYS FOR INFECTIOUS DISEASE RESEARCH

- African Swine Fever Virus Microarray
- BK Polyomavirus Antigen Microarray
- Chikungunya Virus Microarray
- Dengue Virus Types 1/2/3/4 Proteome Microarray
- Epstein-Barr Virus Peptide Microarray
- Foot-and-Mouth Disease Virus Proteome Microarray
- HBV L-Protein Antigen Microarray
- HBV Proteome Microarray
- HCMV Antigen Microarray
- HCV Proteome Microarray
- HIV-1 (Env) Antigen Microarray
- Infectious Disease Epitope Microarray
- Influenza Virus H1N1 Proteome Microarray
- Influenza Virus H5N1 Proteome Microarray
- Japanese Encephalitis Virus Proteome Microarray
- MERS-CoV Proteome Microarray
- Mpox Virus Peptide Microarray
- Mycobacterium Tuberculosis Antigen Microarray
- Neglected Tropical Diseases Peptide Microarray
- Pan-corona Spike Protein Microarray
- Peptidoglycan Microarray
- SARS Coronavirus Proteome Microarray
- SARS-CoV Antigen Microarray
- SARS-CoV-2 Proteome 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
- Zika Virus Proteome Microarray