

Antigen Protein Microarrays

Full length antigen proteins

GeneCopoeia's OmicsArray™ antigen protein microarrays are engineered for several powerful applications, including autoantibody detection, biomarker profiling, and characterization of protein-molecule interactions. Antigen protein microarrays enable parallel detection of antibodies or other biomarkers present in patient samples for autoimmune diseases including rheumatoid arthritis, muscular dystrophy, systemic lupus erythematosus, neurological autoimmune disorders, myocardiomyopathy, and type 1 diabetes, as well as allergen and pathogen antibodies.

Each array contains superior-quality purified proteins spotted onto nitrocellulose filters, which are adhered to glass slides. Proteins known to be associated With specific diseases are chosen based on a functional proteomic analysis and a thorough review of peer-reviewed publications.

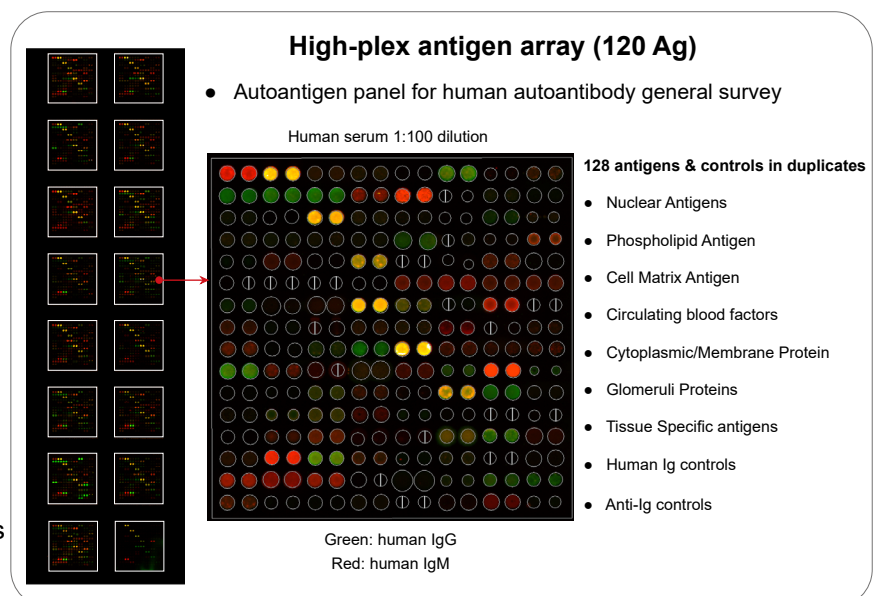
In addition to predesigned arrays, we provide custom array design and printing service based on your research specifications. we also provide antibody profiling service using our arrays and data analysis.

Advantages

- **High-density.** Our high density proteom array contains >16,000 full length proteins on one slide for proteom antibody profiling.
- **Multiplexing.** Our regular OmicsArray™ antigen protein microarrays can assay up to 120 antigens per well for two types of antibodies (IgG/IgM, IgA/IgE simultaneously), compared with 1 protein per well for ELISA.
- **High throughput.** Each slide can process up to 15 samples and multiple slides can be processed in parallel.
- **High sensitivity.** Each array can detect as little as 1 pg/ml of antibody, which is 100-fold more sensitive than ELISA.
- **Full length antigen proteins.** The conformational structures of the proteins are preserved on 3D surface of the array.
- **Small sample volume.** Only 2ul of serum or plasma samples are needed for each array (for 120 antigen panels)
- **Fast turn around.** You can receiving the fully analyzed data as soon as 5 days after submitting your samples.

Antibody Profiling:

- Autoimmune diseases
- Neurological disorders
- Cancer immunotherapy
- Pathogens & allergens
- Coronavirus variants
- Myocarditis and cardiac autoimmune
- Anti-phospholipic Syndrom(APS)
- Protein Post-translational Modifications



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Pre-designed antigen protein microarrays

Cat.No.	Number of Antigens	Description	Application
PA001	120	Systemic Autoimmune-associated Antigen Array	Profiling autoantibodies for lupus, Sjögren's and other systemic rheumatic diseases
PA002	120	NEW! Brain and Neuronal-associated Antigen Array	Profiling autoantibodies associated with brain and neuronal disorders
PA003	120	Cancer and Neoplasm-associated Antigen Array	Profiling autoantibodies associated with cancer and cancer checkpoint immunotherapy
PA004	120	NEW! Antiphospholipid Syndrome and Neutrophil Extracellular Traps Antigen Array (un-citrullinated antigens)	Profiling autoantibodies associated with Antiphospholipid syndrome (APS) and Neutrophil extracellular traps (NETs) antigens.
PA005	120	NEW! Antiphospholipid Syndrome and Neutrophil Extracellular Traps Antigen Array (citrullinated antigens)	Profiling autoantibodies associated with Antiphospholipid syndrome (APS) and Neutrophil extracellular traps (NETs) antigens.
PA006	75	Allergen Antigen Array	Profiling antibodies (IgG, IgE) reacting with common allergens
PA010	120	Infection and Vaccination-associated Autoimmune Antigen Array	Profiling antibodies associated with common virus and vaccine induced autoimmunity
PA011	64	NEW! Interferon, Infection and Autoimmune Antigen Array, 64-plex	For profiling antibodies associated with viral infection and autoimmune disorders.
PA012	120	Coronavirus infection-associated Autoimmune Antigen Array	Profiling antibodies associated with coronavirus infection and vaccination induced autoimmunity
PA013	58	SARS-CoV-2 and Variants Antigen Array	Profiling antibody reactivities with the spectrum of antigens of SARS-CoV-2 and variants
PA015	21	NEW! Ganglioside and Phospholipid Antigen Array	Profiling autoantibodies against gangliosides and phospholipids in autoimmune neuropathies
PA014	15800	NEW! Proteomic Antigen Array – contains ~16,000 mammalian proteins	Discovering novel autoantibody biomarkers in various immune-associated diseases

Custom antigen protein microarray services

- **Sample processing.** Send us your blood, plasma, tissue, or other biological sample and we will prepare it for processing and incubation with any of our predesigned antigen microarrays or custom-built antigen microarrays
- **Data analysis.** Once samples are processed and incubated with an antigen microarray, we will analyze the raw data. The standard analysis service includes: 1) An Excel file of the Net Signal Intensity (NSI) for each antigen on the array, normalized to internal controls; and 2) a heat map. 3) Group comparison with fold change and p value

Additional analysis services, including proteomic analysis, pathway analysis, and more, are also available.

To inquire about custom antigen microarray services, please contact us at inquiry@genecopoeia.com.

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