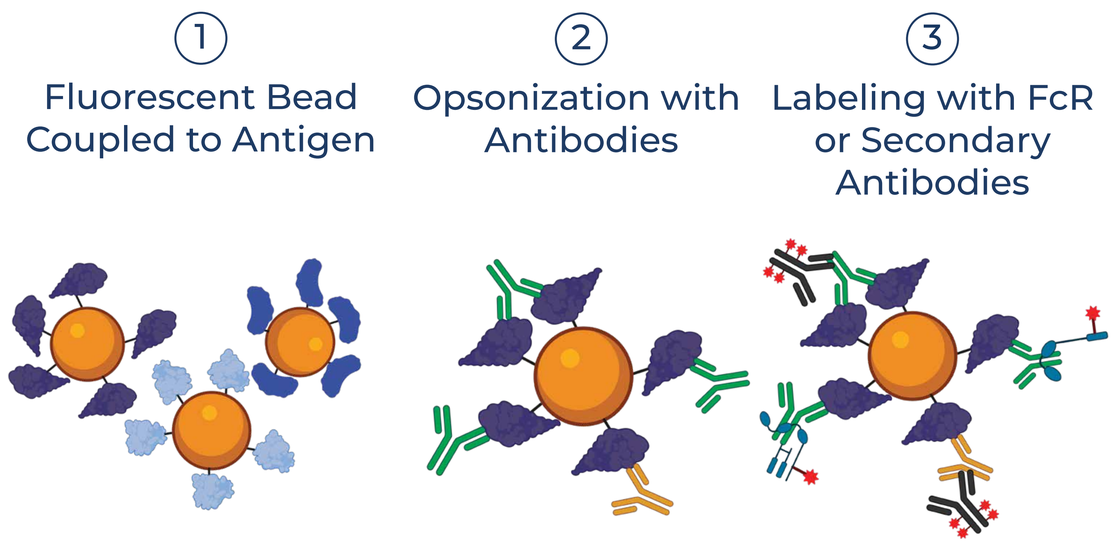
SeromYx Assay Descriptions

Suite of **15 Fc Effector Function** Assays

Biophysical Assays

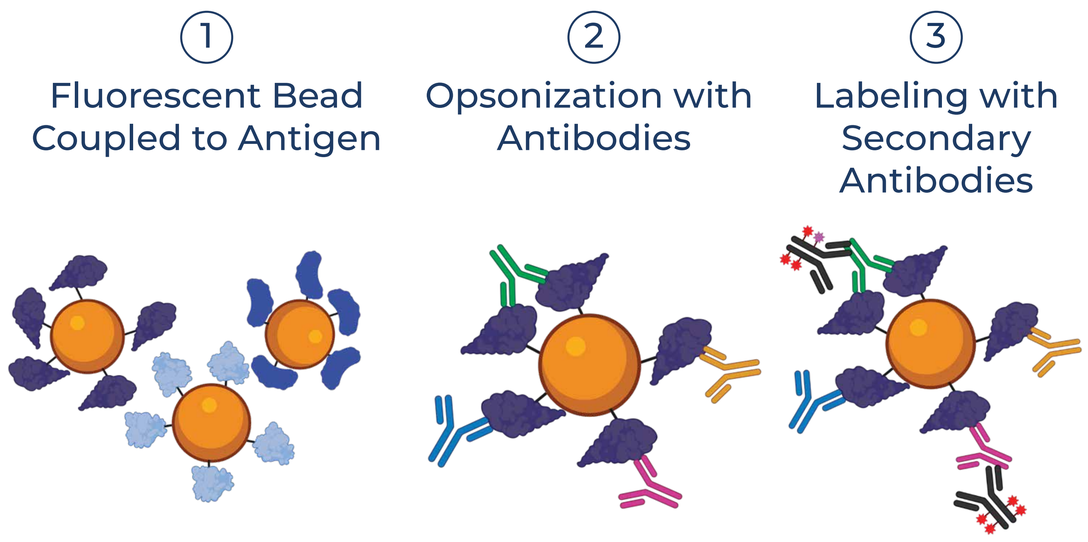
Fc Receptor Binding Array

Fluorescently coded microspheres capture multiple antigen specificities simultaneously and profile the effector capacity by assessing interaction of antigen-specific antibodies with Fc receptors. Available receptors: FCGR2A (R131, H131), FCGR2B, FCGR3A (V158, F158), FCGR3B, FCRN (pH 6.0, 7.4), FCA, C1q, TRIM21.



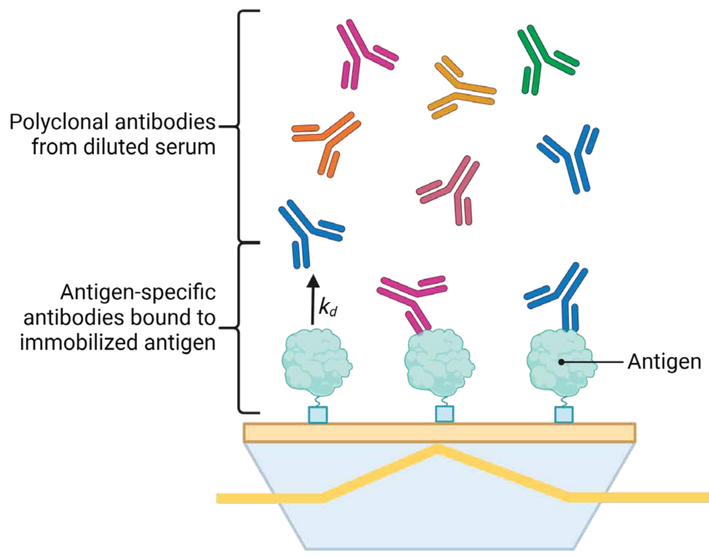
Antigen Specific Antibody Isotyping and Subclassing (ISSC)

Fluorescently coded microspheres capture multiple antigen specificities simultaneously and profile the isotype/subclass distribution in an antigen-specific manner. Available receptors: Total IgG, IgG1, IgG2, IgG3, IgG4, IgA1, IgA2, IgM.



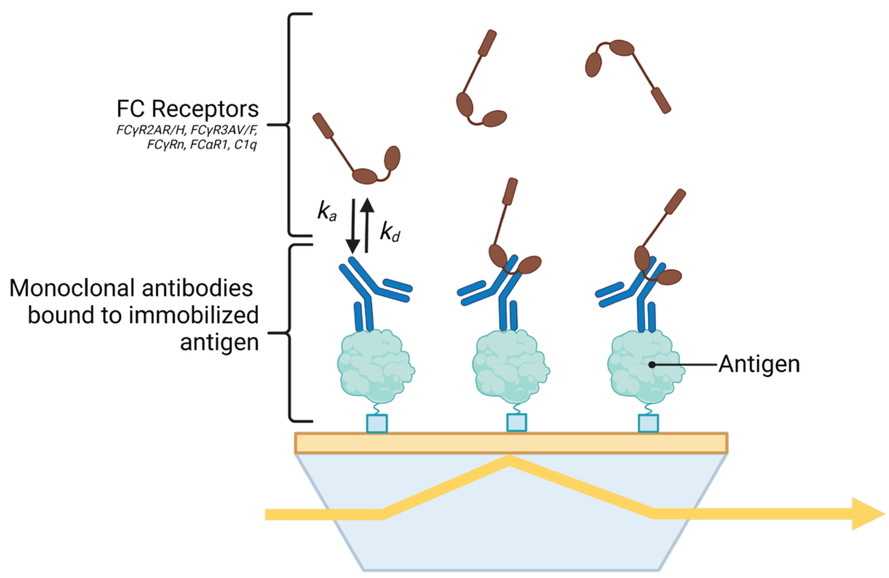
Antibody Avidity by SPR

Avidity Index measures the strength of binding to a target antigen by either polyclonal antibodies from serum or monoclonal antibody cocktails. The off-rate is utilized along with the magnitude of response to compute avidity index.



Antibody Fc-FcR Affinity by SPR

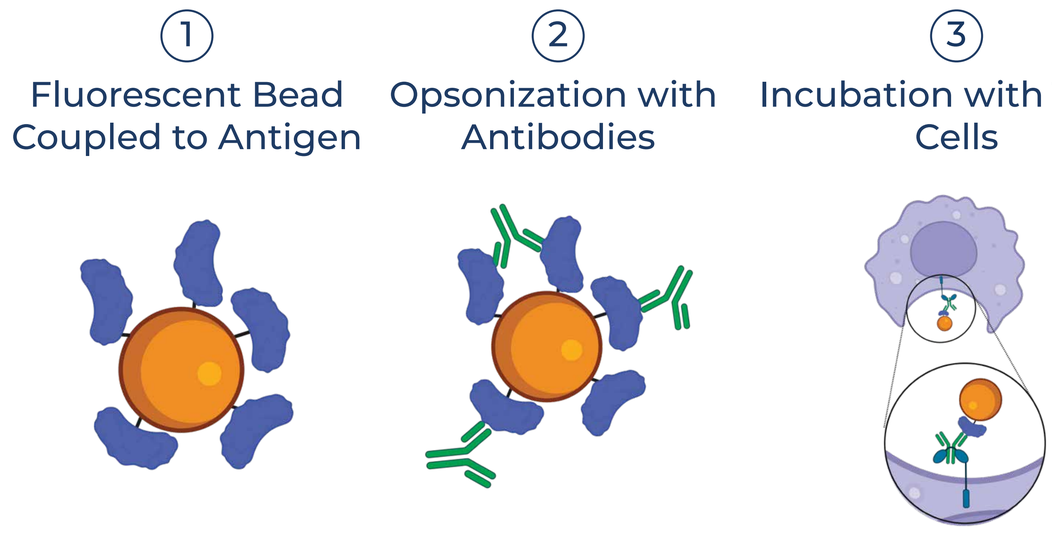
Tripartite binding measures traditional antibody affinity kinetics in an antigen-specific manner. The kinetics of the antigen-antibody-receptor interaction describe the on-rate, the off-rate, and the associated affinity (equilibrium dissociation constant, KD) of the antibody with the receptor. We also conduct bipartite Fc-FcR affinity measurements.



Cellular Functional Assays

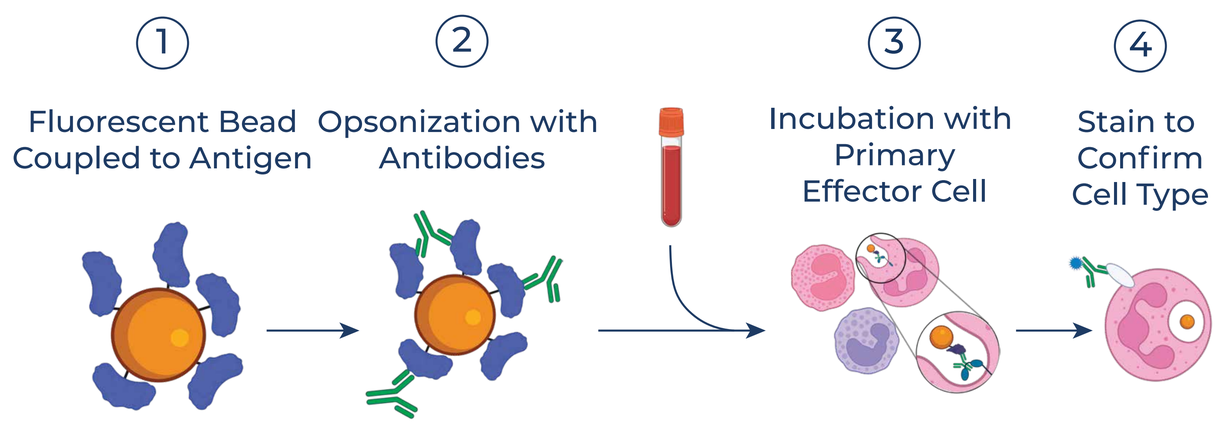
Antibody Dependent Cellular Phagocytosis (ADCP)

Assesses the ability of antibodies to induce phagocytosis of antigen- functionalized fluorescent beads by monocytes via Fc receptors.



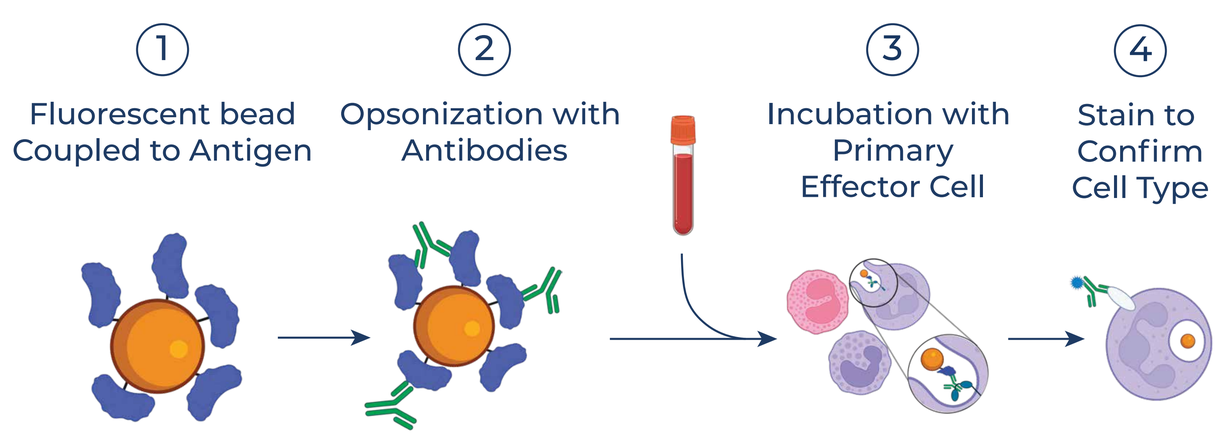
Antibody Dependent Neutrophil Phagocytosis (ADNP)

Assesses the ability of antibodies to induce the phagocytosis of antigen-coated targets by primary neutrophils.



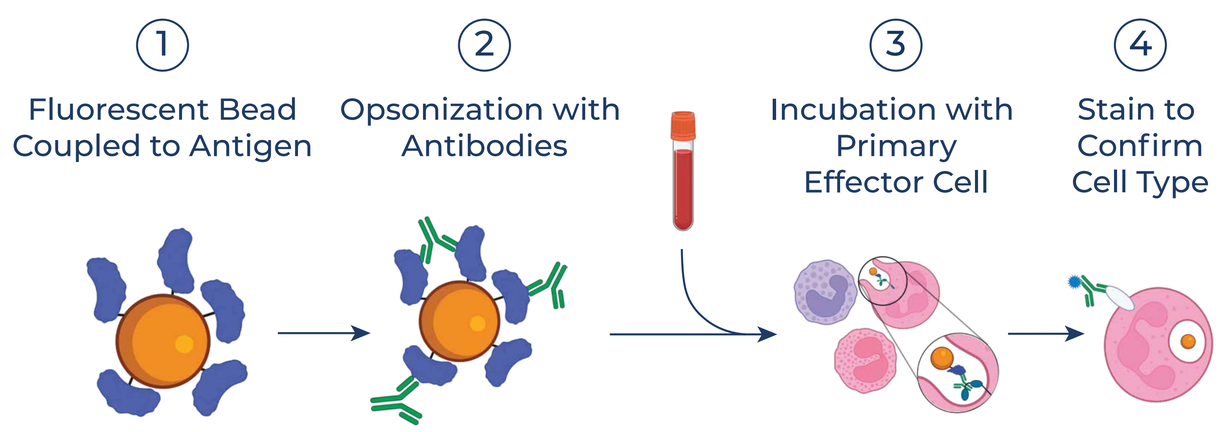
Antibody Dependent Basophil Phagocytosis (ADBP)

Assesses the ability of antibodies to induce the phagocytosis of antigen-coated targets by primary basophils.



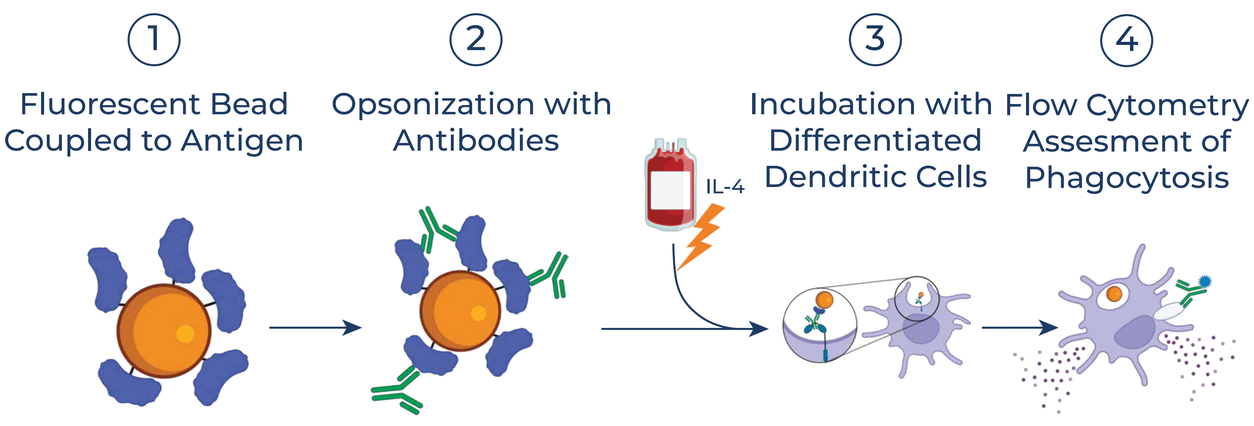
Antibody Dependent Eosinophil Phagocytosis (ADEP)

Assesses the ability of antibodies to induce the phagocytosis of antigen-coated targets by primary eosinophils.



Antibody Dependent Dendritic Cell Phaogcytosis (ADDCP)

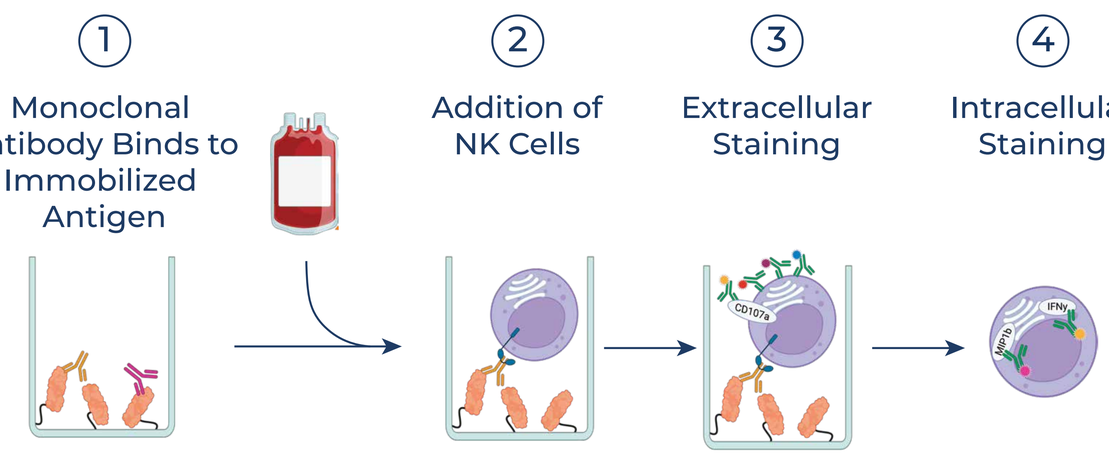
Assesses the ability of antibodies to induce phagocytosis of antigen-coated targets by dendritic cells as well as DC activation/maturation and cytokine release.



Cellular Functional Assays

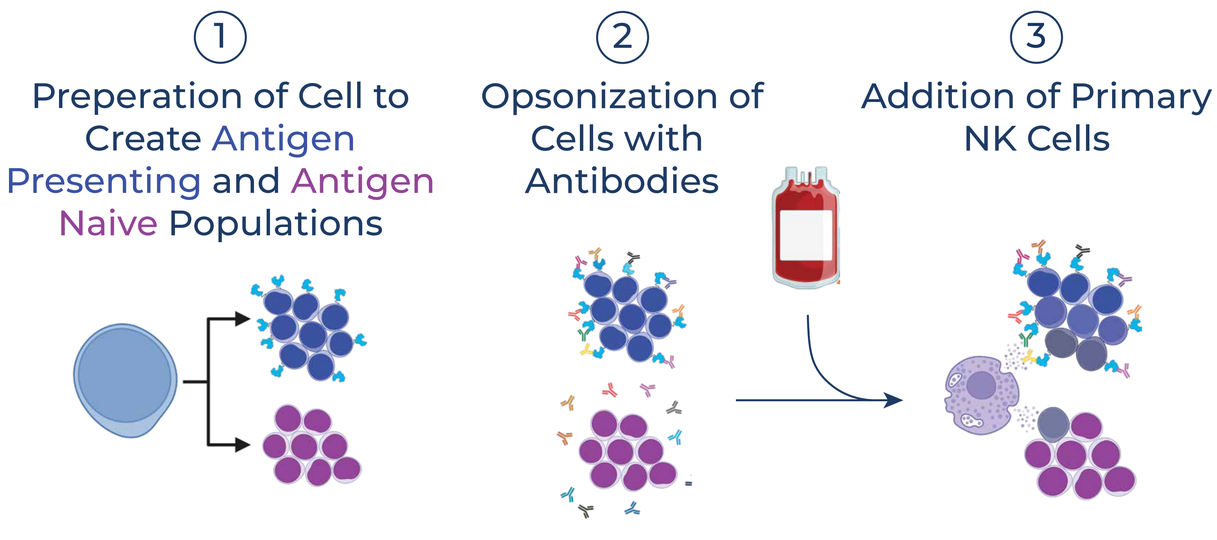
Antibody Dependent NK Cell Activation (ADNKA)

Assesses the ability of antibodies to induce NK cell activation against antigen-coated plates by measuring the levels of CD107a, IFN-γ and MIP-1β.



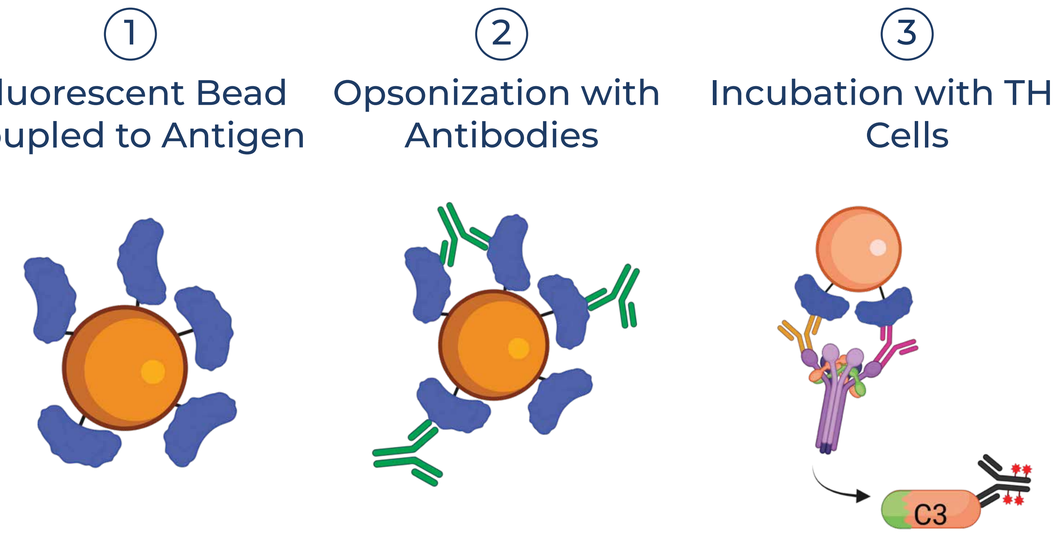
Antibody Dependent Cellular Cytotoxicity (ADCC)

Tests the ability of antigen-specific antibodies to recruit NK cell lytic activity.



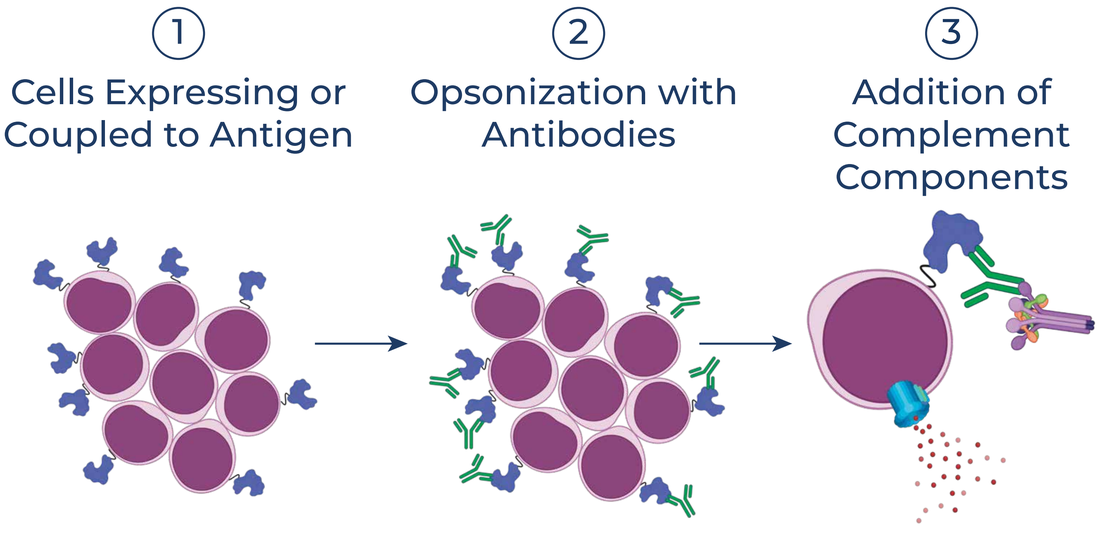
Antibody Dependent Complement Deposition (ADCD)

Assesses the recruitment of complement component C3b on the surface of antigen-coupled beads.



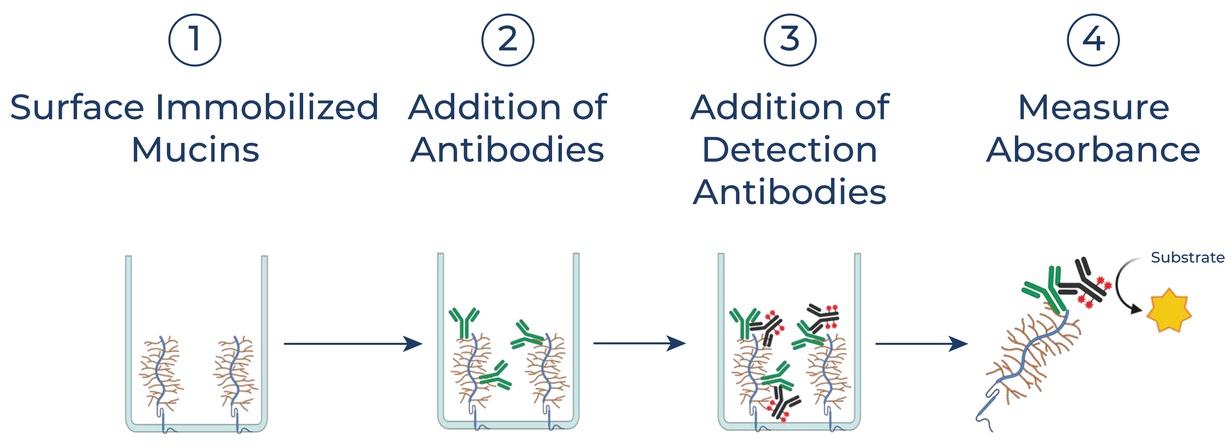
Antibody Mediated Complement Dependent Cytotoxicity (CDC; AMCDC)

Tests the ability of antigen-specific antibodies to activate complement-mediated cell death.



Antibody Dependent Mucin Binding (ADMB)

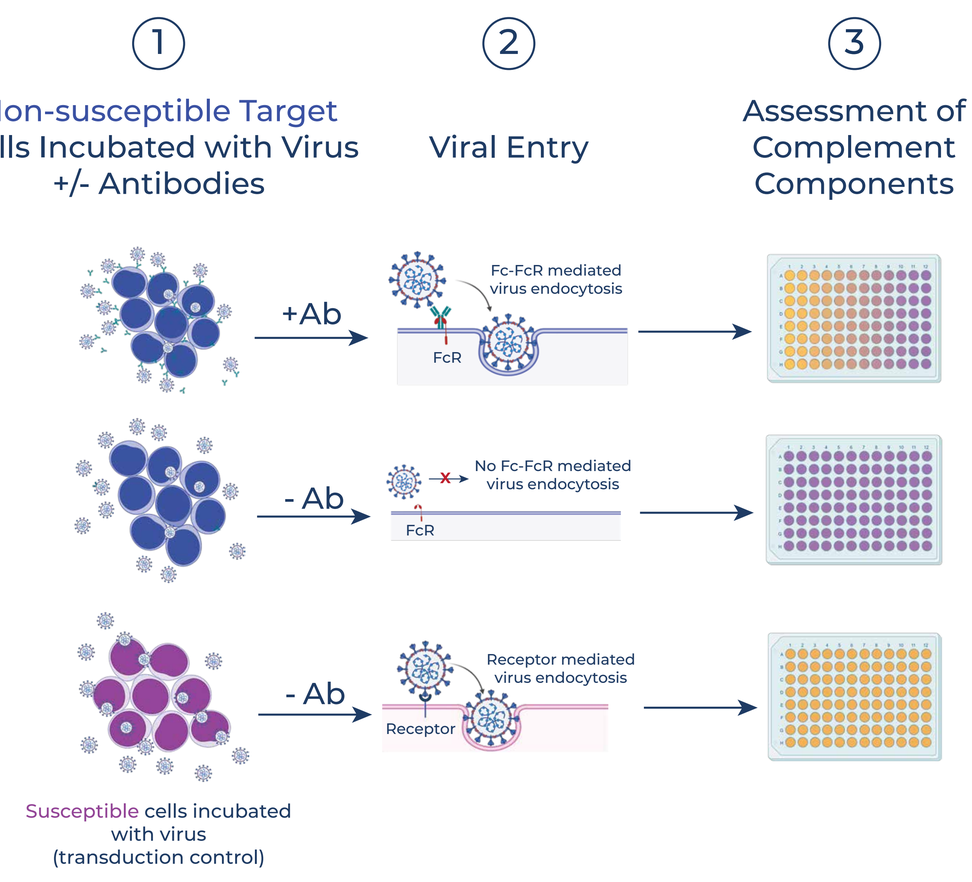
Measures the capacity of antibodies to trap pathogens in mucus proteins.



Cellular Functional Assays

Antibody Dependent Enhancement of Infection (ADEI)

Measures the enhancement of viral infection caused by antigen specific antibodies in non-susceptible target cells.



Get in Touch

About SeromYx Systems

SeromYx Systems, Inc. is a global leader in providing GCLP high-throughput antibody characterization and Systems Serology services, offering advanced solutions for the comprehensive analysis of immune responses and correlation of antibody function with clinical outcomes. With a dedication to innovation and excellence, SeromYx is at the forefront of revolutionizing the field of vaccine and therapeutic antibody development through its cutting-edge technologies and strategic collaborations.

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