

Immuno Oncology Assay Services

Immune cell profiling and characterization services from discovery to efficacy testing

Biochemical Assays	Effector Cell Phenotype & Function	Cytotoxicity Co-culture	In vivo Models
Binding Kinetics SPRI Analysis Competition Selectivity Functional Binding Assays Thermal shift Custom Assays	Effector cells T cell proliferation, activation T cell or NK phenotyping Cytokine determination Antibody Dependent Cell Cytotoxicity (ADCC) Complement Dependent Cell Cytotoxicity (CDC) Immune check point inhibitors Monocytes/Macrophages Differentiation Phagocytosis	Target Killing Assays 2D Luciferase-based 2D Flow-based 3D Luciferase-based	Humanized Syngeneic Xenograft

Antibody Dependent Cell Cytotoxicity (ADCC) Assay

Antibody-Dependent
Cell-mediated Cytotoxicity (ADCC)

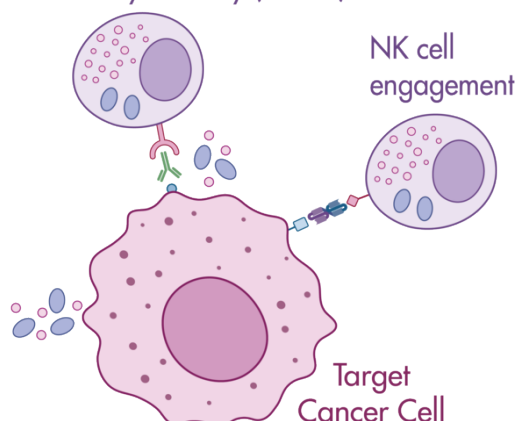


Figure 1. Mechanism of ADCC based cell cytotoxicity. The therapeutic antibody recognizes the antigen receptors on the target cells via its Fab domain, while the Fc portion of the antibody binds to the Fc receptors on immune cells such as Natural Killer cells or monocytes

We have established several ADCC model assays that can be used to test your antibody drug

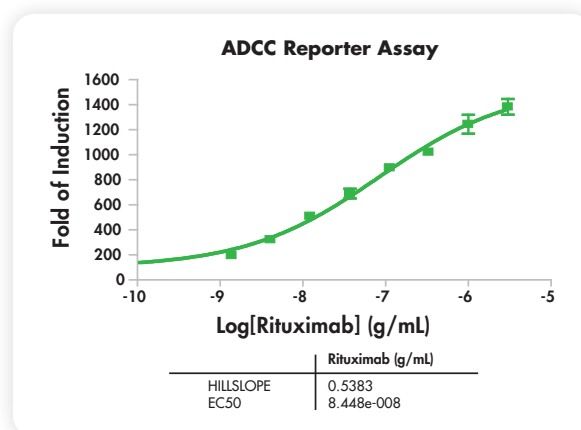
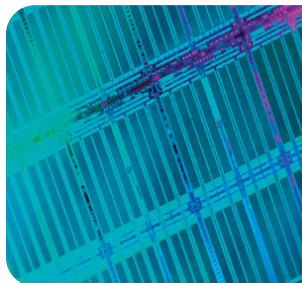


Figure 2. Engineered Jurkat T cells stably expressing the FcγRIIIa receptor, V158 variant and an NFAT response element driving expression of firefly luciferase. Tested against Raji target cells using Rituximab (Anti-CD20 chimeric monoclonal antibody drug).

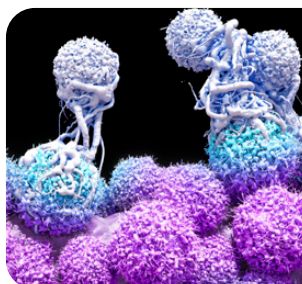


OUR SERVICES



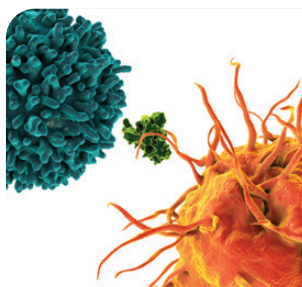
Biophysical Assays

Surface Plasmon Resonance • Thermal Shift • Isothermal Titration Calorimetry
Microscale Thermophoresis • Custom-tailored Assay Development
Investigate affinity, kinetics, competition, binding selectivity, K_i , reversibility



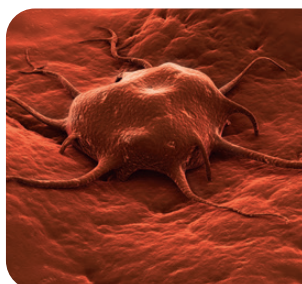
Immune Cell Profiling

ADCC and functional characterization • Immunophenotyping
Cytokine Analysis • Cell Proliferation • Macrophage Differentiation & Phagocytosis
Complement Dependent Cell Cytotoxicity (CDC) • Immune check point inhibitors



Cytotoxicity Assays

2D Flow-based • 2D Luciferase-based
Spheroids • NK Cell Killing Assays



In vivo Tumor Models

Syngeneic • Humanized • Xenograft
SubQperior • Orthotopic • Metastasis

Contact us to discuss your project

www.reactionbiology.com • sales@reactionbiology.com

