

# **Functional Bioassays**

Custom-tailored assay design to assess the functionality of your drug candidate



Adequate bioassays are needed during all stages of drug development, e.g., for candidate screening, characterization of potential modes of action and safety assessment during preclinical testing as well as potency, stability and comparability testing during manufacturing.

FyoniBio provides bioanalytical services applying its long-term expertise in the development of functional and potency bioassays for different biotherapeutics (e.g., antibodies and other glycoproteins). Our team is used to work with a number of complex cell-based assays using different target and effector cells including human primary immune cells.

The portfolio comprises methods to assess target and effector cell binding, signaling events, viability, cytotoxicity, cytokine release and other immune functions. We offer custom-specific assay development and validation for application within preclinical and clinical studies.

FyoniBio is certified according to ISO 9001 and complies with the current bioanalytical guidelines of ICH, FDA and EMA.

# **Our Core Competencies**

- Project consultancy
- Cytotoxicity & Cellular immunoassays with more than 100 different human cell lines and primary cell preparations
- Ligand-binding assays
- Custom-tailored assay development
- Assay validation & assay transfer possible

# **Functional Bioassays**

### **Selection of Available Bioassays**

#### **Binding Assays**

- Target binding
- Fc receptor binding
- Dual cell binding
- Blood cell binding
- Antigen quantification
- Binding kinetics (affinity)

#### **Cell Viability and Cytotoxicity Assays**

- Viability
- o Proliferation assays (2D or 3D culture)
- o Apoptosis detection
- o ADCC with different effector cells
- CDC
- Phagocytosis
- Cell cycle analysis
- nAb assay

#### **Immuno-Oncology Assays**

- Isolation, differentiation and phenotyping of immune cell populations
- T cell activation
- T cell proliferation
- Immune checkpoint assays
- Mixed lymphocyte reactions
- Cytokine release

#### **Signaling Assays**

- Receptor modulation
- Receptor phosphorylation
- Signal transduction
- · Reporter gene activity
- cAMP release assay
- Biomarker

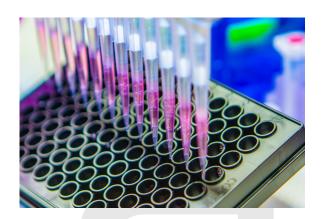
#### **Others**

- Protein or cell activation
- Internalization
- Cell Adhesion
- Migration
- · Coagulation assays for blood factors
- Enzymatic activity assays
- Drug combination
- Custom-specific assay development



## **Available Technologies**

- o Cytotoxicity & Cellular immunoassays with more than 100 human cell lines and primary cell preparations
- o ELISA in all formats
- Electrochemiluminescence (MSD)
- Multicolor flow cytometry
- Alpha technology
- RT-PCR
- o Imaging, immunohistochemistry, immunofluorescence



The FyoniBio team is glad to support you throughout your projects

FyoniBio offers high quality ISO-9001 compliant services. Fore more information please contact us.



