Biological Essays

Our methods are validated under international guidelines such as the **United States Pharmacopeia (USP) <1033>** and the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH) M10 Bioanalytical Method Validation and Sample Analysis Guidelines, ensuring data integrity and scientific validity of our in vitro evaluations.

Capabilities

We have laminar flow hoods, a UV-Vis plate reader Spectramax M3, fluorescence intensity measurements, an EPOCH spectrophotometer, a FACS AriaIII flow cytometer, and other high-capacity equipment for cell-based assays.

Quality

Cell-based biological assays at UDIBI are conducted in compliance with good laboratory practices (GLP), and the activities are audited by our Quality Management System.

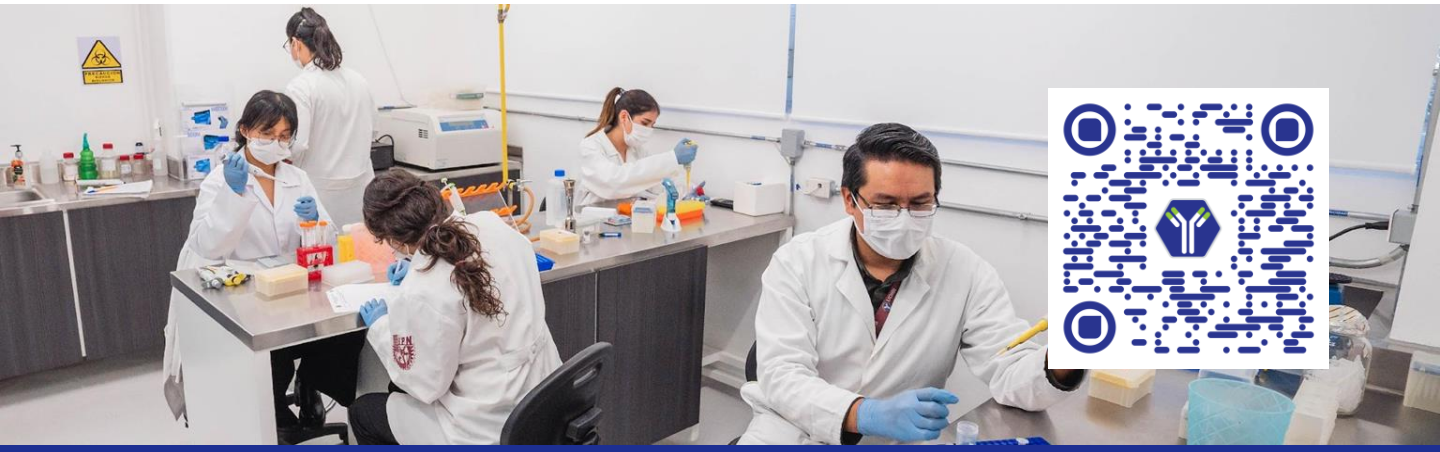
Standardization and validation of methods

We develop, standardize and validate tests for the evaluation of biotechnological products in different stages of development, we carry out biocomparability and stability or batch release tests.

UDIBI

At UDIBI, we have extensive experience in Bioassays such as:

- **ADCC (Antibody-Dependent Cell-Mediated Cytotoxicity):** Assesses the effector function of an antibody through the activation of effector cells and elimination of target cells recognized by the antibody.
- **CDC (Complement-Dependent Cytotoxicity):** Evaluates the ability of an antibody to activate the complement system to destroy target cells.
- **Apoptosis:** Analyzes the ability of an antibody to induce or inhibit programmed cell death, known as apoptosis, and selectively eliminate abnormal cells.
- **Target Binding:** Evaluates the affinity and specificity of an antibody to bind to its molecular target on the cell surface.
- **Cytotoxicity Evaluation:** Assesses the ability of a compound to cause damage in a cell culture, used as part of safety or product viability assessment.
- **Cell Proliferation Inhibition or Induction:** Measures the ability of a biomolecule to stimulate or inhibit cell proliferation.
- **Phosphorylation and Activation of Cellular Receptors:** This assay analyzes the effects of an antibody on the activation of cellular receptors, including receptor phosphorylation.
- **Activation of Cellular Receptors:** Evaluates the ability of biomolecules to activate specific cellular receptors and trigger cellular responses, such as cytokine production or gene expression.
- **Assessment of Mitogenic and Metabolic Activity:** This assay analyzes the impact of biomolecules on the mitogenic and metabolic activity of cells, such as their ability to stimulate cell proliferation and metabolism.
- **Neutralization and Blocking of Ligand-Receptor Interaction Assays:** These assays evaluate the ability of an antibody to neutralize or block the interaction between a ligand and its corresponding receptor.
- **Cell Activation Assays:** Evaluates the ability of compounds or biomolecules to induce or inhibit the activation of immune system cells.



UDIBI, a leader in translational science in Mexico and Latam

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