Comprehensive Flow Cytometry Solutions for Clinical Trials Global Standards, Advanced Technologies, and Custom Assays



Global Harmonization and Compliance

- We adhere to stringent global standards, including GCLP, to facilitate smooth integration of our flow cytometry services into global clinical trials.
- With in-house flow cytometry capabilities in the U.S. and Europe, we ensure that our assays are validated and harmonized globally according to CLSI H62 guidelines, reducing variability and improving consistency across all sites.

Integrated Global Gating and Quality Control

- Our global gating strategies provide reproducibility across multiple sites for diverse sample sets through automated, standardized procedures, allowing for seamless integration of datasets to support global trials.
- We confirm the precision of instrument settings across multiple continents with daily instrument calibrations, standardized protocols, and stringent QA processes minimizing variability and guaranteeing data accuracy.

State-of-the-Art Technology

- We employ cutting-edge flow cytometry technology, including BD FACSLyric™ and BD FACSMelody™ from BD Biosciences, and NL-2000 from Cytek, offering multi-color capabilities (up to 20 colors) and high sensitivity for detailed phenotypic and functional analyses.
- Our advanced systems support complex applications such as immuno-phenotyping, minimal residual disease (MRD), and cell-based potency assays, ensuring accurate and high-quality data output for diverse research needs, including oncology, immunology, and regenerative medicine.

Diverse Sample Types

We work with a broad range of sample types, including whole blood PBMCs (Peripheral Blood Mononuclear Cells), and BMMCs (Bone Marrow Mononuclear Cells), ensuring flexibility to support various clinical and preclinical applications.

Customization and Flexibility

- MLM Medical Labs specializes in developing bespoke assay solutions tailored to the unique requirements of each clinical trial, allowing us to support a wide range of therapeutic targets, from CAR-T cell therapies to autoimmune disease research.
- Our flexibility extends to adjusting sample handling procedures, optimizing panel designs, or incorporating new biomarkers as they are identified, ensuring maximum adaptability for the diverse types of drug targets being developed for precision medicine.

Receptor Occupancy

Our flow cytometry-based receptor occupancy assays are designed to address key challenges clinical trial sponsors face. With our state-of-the-art platforms and scientific expertise, we provide:

- Quantitative & Qualitative Analysis: Comprehensive data on the percentage and intensity of receptor occupancy.
- Dynamic Range Assessment: Precise results even at high and low receptor expression levels.
- Custom Assay Development: Tailored assays to fit specific trial needs, using antibodies specific to your investigational drug.
- Multiplexed Analysis: Simultaneous measurement of multiple receptor states for complex trials.

Platelet Function Testing

Our laboratory's flow cytometry-based platelet function testing services provide precision analysis crucial for clinical trials in cardiovascular, autoimmune, and oncology fields. By utilizing cutting-edge flow cytometry technology, we offer rapid, multiparameter insights into platelet activity and thrombo-inflammatory processes, supporting safe and effective therapeutic development.

Key Capabilities:

- Comprehensive Marker Analysis: Measures key platelet activation markers, including CD62P (P-Selectin) for alpha granule release and CD63 for dense granule release, enhancing sensitivity and accuracy over traditional methods.
- Platelet-Leukocyte Aggregate Analysis: Evaluates thrombo-inflammatory activity, offering insights into platelet interactions with immune cells like monocytes and neutrophils.
- Optimized Drug Monitoring: Supports cardiovascular trials by measuring the inhibition of platelet activation, crucial for assessing antiplatelet therapies.

For further information please reach out to: Theresa Heath, VP Business Development & Marketing, US theresa.heath@mlm-labs.com . Mobile 480-236-8312