

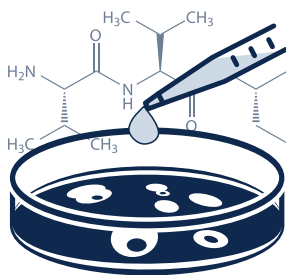
MDSC ASSAYS

PREDICT RESPONSES TO IMMUNE CHECKPOINT INHIBITORS AND IMPROVE PATIENT STRATIFICATION

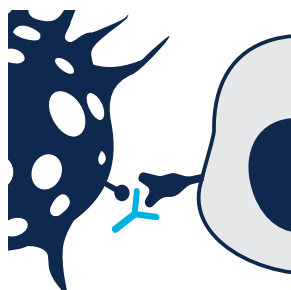
WHY MONITORING MDSC?

The treatment of cancer has been revolutionized by the development of immunotherapies including PD-1/PD-L1 inhibitors and other checkpoint blockades. However, response rates have been variable and better response rates were seen in patients with lower levels of MDSC (Liu Y *et al. Cancer Immunol Immunother* 2018;67:1181-95). Patients with elevated MDSC may benefit from supplemental drugs and many combination therapies are currently in clinical development. Some of these combinations are thought to work by inhibiting MDSC and thereby creating a permissive environment for activated T cells. **MDSC has shown the potential of becoming a critical biomarker to predict the outcome of checkpoint inhibitors and support personalize medicine.**

MDSC measurement at different endpoints of clinical trials



As an exploratory biomarker to characterize immune responses



As a potential pharmacodynamic (PD) biomarker to assess efficacy of checkpoint inhibitor treatments



As a patient stratification CLIA-certified assay to assess anticipated response rates to checkpoint inhibitor treatments in clinical trials

ACCELERATE YOUR DRUG DEVELOPMENT WITH THE RIGHT ASSAY AND DATA

- ▼ **Cyto-Chex® BCT** for whole blood collection to improve sample integrity and ensure optimal MDSC measurement
- ▼ Flow panels designed specifically to measure the frequency of **blood monocytic and/or granulocytic MDSC**
- ▼ Absolute cell counts can be reported through the use of **BioLegend® Precision Count Beads™**
- ▼ Option to use the **CLIA-certified panel** or the exploratory panel with up to 18 markers
- ▼ **icScore™** - A proprietary algorithm licensed from Memorial Sloan Kettering Cancer Center, to support non-biased reliable gating for HLA-DR

OUR MDSC ASSAYS WERE FEATURED IN PEER-REVIEWED SCIENTIFIC PUBLICATIONS

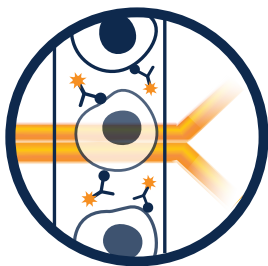
QUALITY SAMPLE HANDLING

Stabilizing MDSC
Cyto-Chex® BCT



FLOW CYTOMETRY ASSAY

Specific flow panels
for m/gMDSC



DATA ANALYSIS

Comprehensive and reliable
analysis and interpretation



CLIA-CERTIFIED OPTION



- Wan D *et al.* Sequential depletion of myeloid-derived suppressor cells and tumor cells with a dual-pH-sensitive conjugated micelle system for cancer chemoimmunotherapy. *J Control Release* 2020;317:43-56.
- Callahan MK *et al.* Nivolumab plus ipilimumab in patients with advanced melanoma: updated survival, response, and safety data in a phase I dose-escalation study. *J Clin Oncol* 2018;36(4):391-398.
- De Henau O *et al.* Overcoming resistance to checkpoint blockade therapy by targeting PI3K in myeloid cells. *Nature* 2016;539:443-447.
- Kitano S *et al.* Computational algorithm-driven evaluation of monocytic myeloid-derived suppressor cell frequency for prediction of clinical outcomes. *Cancer Immunol Res* 2014;2(8):812-21.
- Wolchok JD *et al.* Nivolumab plus ipilimumab in advanced melanoma. *NEJM* 2013;369(2):122-33.

MOVE YOUR RESEARCH FORWARD WITH CONFIDENCE

- ▼ Numerous processing sites in North America, Europe, China, and Australia
- ▼ Centralized analysis to guarantee standardization
- ▼ CLIA-certified laboratories
- ▼ Comprehensive quality & accreditations department
- ▼ Clinical trial sites training - including sample collection and processing (PBMC) optimization

RELATED SERVICES

- ▼ Personalized panels for immunophenotyping assays
- ▼ Receptor occupancy (RO) assays
- ▼ Intracellular cytokine staining (ICS)
- ▼ Phosphoflow
- ▼ ELISA

GO FURTHER | MOVE WITH CONFIDENCE | MAKE A DIFFERENCE

With an unwavering commitment to proactive partnership and communication, Caprion-HistoGeneX provides:

- ▼ Unique combination of biomarker discovery expertise and bioanalytical platforms
- ▼ Rapid development and validation of complex assays for clinical studies
- ▼ World leading expertise in immune monitoring and mass spectrometry
- ▼ Comprehensive integrated bioinformatics solutions and proprietary analytical tools ensuring data integrity
- ▼ Consultative partnering approach for study design, protocol review and data interpretation with industry leading immunology and oncology experts

Quality & Accreditations

- ▼ Quality assurance oversight and in-depth reporting
- ▼ State-of-the-art facilities (GLP, GCLP, CAP and/or CLIA)

ABOUT CAPRION BIOSCIENCES

Leading provider of immune monitoring, genomics, histopathology, and biomarker development services to the biopharmaceutical industry with laboratory facilities located globally. Leveraging its integrated platforms, Caprion-HistoGeneX supports the entire drug development cycle, from discovery to clinical trials.

FOR MORE INFORMATION

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