

MDSC FixVUE

formerly UltiMapper® I/O MDSC

Identify Myeloid Derived Suppressor Cells within the tumor microenvironment

This MDSC 4-plex/5-color panel enables the characterization of myeloid derived suppressor cell populations into M-MDSCs and PMN-MDSCs.

This antibody panel consists of the following markers:

CD11b

CD14

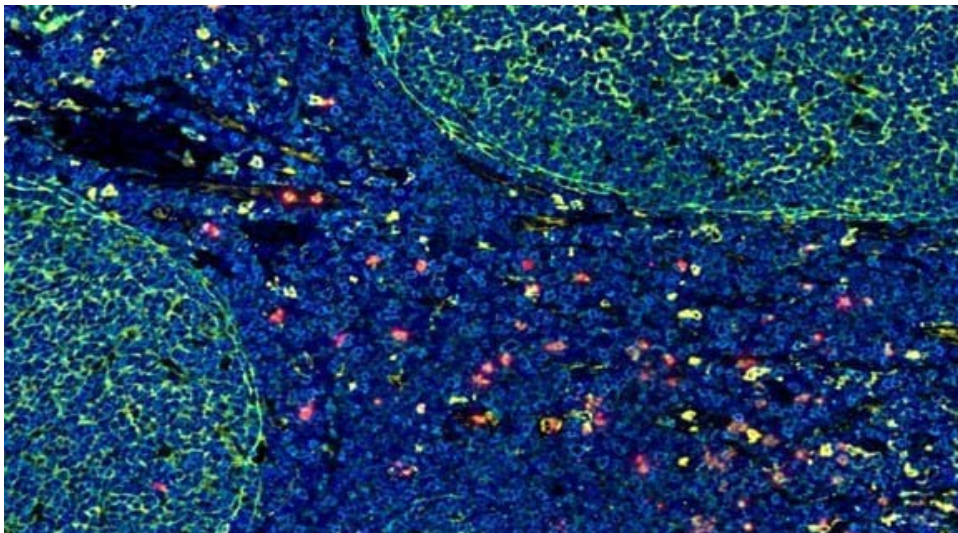
CD15

HLA-DR

Nuclear counterstain

Cell Phenotypes

Cell Phenotyping with the MDSC FixVUE Panel



MDSC FixVUE Panel staining non-small cell lung cancer tissue. CD11b (green), CD14 (yellow), CD15 (red), HLA-DR (cyan), and nuclear counterstain (blue).

The MDSC FixVUE antibody panel enables users to identify myeloid-derived suppressor cells (MDSCs). MDSCs are a heterogeneous population that grow in response to high levels of inflammation and exhibit levels of immune cell suppression. MDSCs exist mainly in two forms: monocytic MDSCs (M-MDSCs) and polymorphonuclear MDSCs (PMN-MDSCs). These cell types can be characterized based on the co-expression of markers.



Phenotype	CD11b	CD14	CD15	HLA-DR
Myeloid cell/lymphoid cell	✓			
Monocyte/Macrophage/Dendritic cell	✓	✓		✓
M-MDSC	✓	✓		(-/low)
Granulocyte (neutrophil/eosinophil)	✓		✓	✓
PMN-MDSC	✓		✓	(-/low)
Antigen-presenting cell				✓

This multiplex IHC panel enables the spatial identification of single biomarkers and co-expression in cells enabling the observation of several phenotypes. The above is a partial list of the 16 distinct binary phenotypes that this panel can identify. The number of phenotypes increases if binned marker intensities are taken into account (e.g. expression of HLA-DR).

Product Biology

Marker	Main Cell Type	Function
CD11b	Myeloid cell	CD11b is primarily expressed on cells of a myeloid lineage. Myeloid cells differentiate into specific cell types such as neutrophils, monocytes, macrophages, and dendritic cells.
CD14	Monocyte	Monocytes are large myeloid cells that can often differentiate into macrophages and dendritic cells. These cells coexpress CD14 and HLA-DR. In the context of MDSCs, M-MDSCs are in a paused state on their path from myeloid to monocytic differentiation and express CD14, but lack HLA-DR expression.
CD15	Granulocyte	Granulocytes are a type of myeloid cell that are characterized by the presence of granules in the cytoplasm, and have a varying nuclear shape; often termed as polymorphonuclear (PMN) leukocytes. Granulocytes can differentiate into neutrophils (prominent cell type), eosinophils, basophils, and mast cells. In the context of MDSCs, PMN-MDSCs are in a paused state on their development path from myeloid to neutrophil differentiation and express CD15, but lack or weakly express HLA-DR.
HLA-DR	Antigen-presenting cell	Human leukocyte antigen (HLA) complex encodes the major histocompatibility complex (MHC). HLA-DR is the main isotype of 3 isotype (-DR, -DP, -DQ) responsible for presentation of antigens to T cells and B cells. Often, HLA-DR is used as a marker indicating the presence of antigen-presenting cells (APC).