

# Maxpar<sup>®</sup> Human Acute Myeloid Leukemia (AML) Phenotyping Panel Kit

Catalog#: 201316  
 Package Size: 25 tests

#### Storage:

- Antibodies, Buffers, and Water: 4°C. Do not freeze.
- Intercalator-Ir: -20°C.

#### Contents:

- Maxpar<sup>®</sup> Cell Staining Buffer (500 mL)
- Maxpar<sup>®</sup> Fix and Perm Buffer (25 mL)
- Maxpar<sup>®</sup> Water (500 mL)
- Cell-ID<sup>™</sup> Intercalator-Ir (125 µM; 25 µL)
- Maxpar<sup>®</sup> Antibodies (see table for panel)\*\*

\*\* The antibodies are provided in individual tubes, not a premixed cocktail.

Target	Clone	Metal	Target	Clone	Metal
CD19	H1B19	142Nd	CD15	W6D3	164Dy
CD117	104D2	143Nd	CD34	581	166Er
CD11b	ICRF44	144Nd	CD3	UCHT1	170Er
CD64	10.1	146Nd	CD44	IM7	171Yb
CD7	CD7-6B7	147Sm	CD38	HIT2	172Yb
CD123	6H6	151Eu	HLA-DR	L243	174Yb
CD45	HI30	154Sm	CXCR4	12G5	175Lu
CD33	WM53	158Gd			

## Technical Information

**Description:** The Maxpar<sup>®</sup> AML Panel Kit is for the identification and phenotyping of human acute myeloid leukemia (AML). AML, the most common type of acute leukemia in adults, is a malignancy arising within the bone marrow due to a disruption of normal hematopoiesis. AML arises within precursors of myeloid, erythroid, megakaryocytic and monocytic cell lineages due to the acquisition of chromosomal rearrangements and multiple gene mutations. The immunophenotype of AML is highly heterogeneous; markers frequently expressed by AML include CD15, CD33, CD34 and CD64.

**Recommended Usage:** For staining with the Human AML Phenotyping Panel Kit, cells should be prepared using standard techniques and stained according to the Maxpar<sup>®</sup> Cell Surface Staining Protocol. Data collection is performed on a CyTOF<sup>®</sup> mass cytometer.

Flow cytometric immunophenotyping for hematologic neoplasms. Craig FE, Foon KA. Blood. 2008 Apr 15;111(8):3941-67. Review.

Biology of normal and acute myeloid leukemia stem cells. Dick JE, Lapidot T. Int J Hematol. 2005 Dec;82(5):389-96. Review.

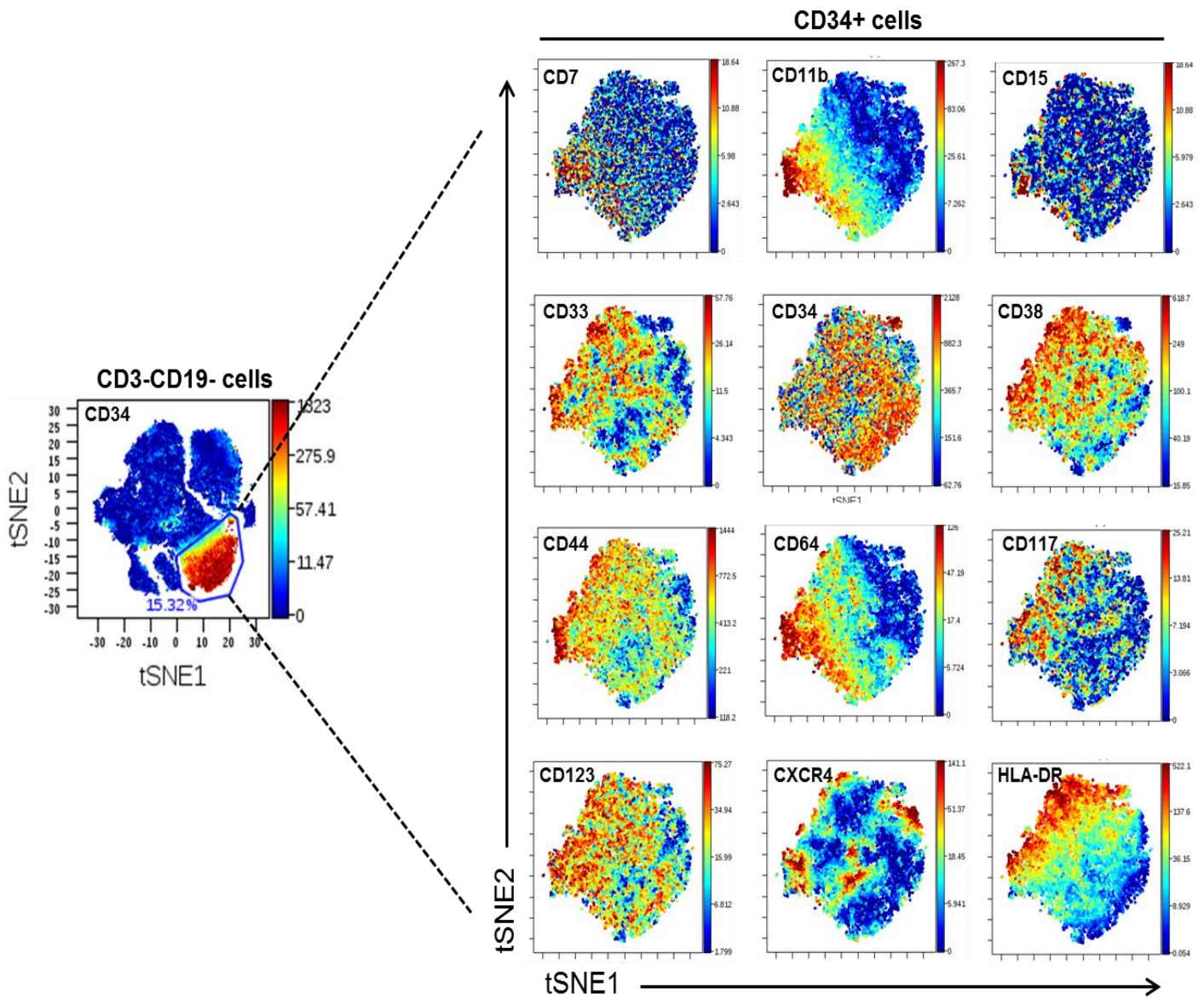
viSNE enables visualization of high dimensional single-cell data and reveals phenotypic heterogeneity of leukemia. Amir el-AD, Davis KL, Tadmor MD, Simonds EF, Levine JH, Bendall SC, Shenfeld DK, Krishnaswamy S, Nolan GP, Pe'er D. Nat Biotechnol. 2013 Jun;31(6):545-52.

#### For technical support visit [fluidigm.com/support](http://fluidigm.com/support)

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PBMCs from a patient with Acute Myeloid Leukemia (AML) were stained with the Maxpar AML Phenotyping Panel Kit. The resultant data was analyzed using viSNE, which projects the multi-dimensional distance between events resolved by the markers in the panel kit into two dimensions (tSNE1 and tSNE2). The viSNE map for viable CD3-19- events is shown on the left, heat-mapped for CD34 expression. Further viSNE analysis of the CD34+ AML cells (right) reveals the heterogeneity within AML. Each plot is heat mapped to the indicated marker.