

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Alternative splicing events identified by MultiPath-PSI from experimental and patient-derived RNAseq dataset comparisons.

File Name: Supplementary Data 2

Description: Concordance analysis between shared alternative splicing events from patient samples, ENCODE, and cell type-specific comparisons identified by MultiPath-PSI.

File Name: Supplementary Data 3

Description: Differentially expressed genes identified by AltAnalyze in MOLM13 experimental conditions.

File Name: Supplementary Data 4

Description: Antibodies used for flow cytometry.

File Name: Supplementary Data 5

Description: RT-PCR primer sequences.