

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1  
Description: hEPI9 shRNA library composition.

File Name: Supplementary Data 2  
Description: Supplementary methods information: shRNA sequences / qRT-PCR primers / Patient characteristics.

File Name: Supplementary Data 3  
Description: hEPI9 shRNA screen results in SKK-1 cells after 14 days of treatment with AZA.

File Name: Supplementary Data 4  
Description: Differentially expressed genes determined by SLAM-seq in MOLM-13 cells after 2 hours of treatment with C646.

File Name: Supplementary Data 5  
Description: GO analysis of down- or up-regulated newly synthesized transcripts in MOLM-13 cells after 2 hours of treatment with C646.

File Name: Supplementary Data 6  
Description: Newly synthesized proteins in MOLM-13 cells after 4 hours of treatment with C646.

File Name: Supplementary Data 7  
Description: GO analysis of affected proteins with  $\geq 75$  % decrease in PSM in MOLM-13 cells after 4 hours of treatment with C646.

File Name: Supplementary Data 8  
Description: Polysome profiling in MOLM-13 cells after 4 hours of treatment with C646.