

Supplementary Materials

Dual-Targeted Nanodiscs Revealing the Cross-talk Between Osteogenic

Differentiation of Mesenchymal Stem Cells and Macrophage

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Chromatin Immunoprecipitation	
mmBMAL1-500_F	AAGGATGCCCCTTAACTCGT
mm BMAL1-500_R	GTGGGAAGGTGTGGCTAAGA
mRNA	
GAPDH-F	AGAAGGCTGGGGCTCATTTG
GAPDH-R	AGGGGCCATCCACAGTCTTC
BMAL1-F	CTCAGTCACAGGCAACTCCA
BMAL1-R	TAGACAGGGTAGGGCAGAGG
CLOCK-F	CTGGAGAGAGGAAACCCC
CLOCK-R	TGCTTTTCTTTCACGGGAG
CRY1-F	CAACAGGTGGCGATTTTTGC
CRY1-R	CCGAATCACAAACAGACGAG
PER1-F	AGAGTCCCAGACCAGGTGTC
PER1-R	GGAGGACGAAACAGGGAAGG
PER2-F	CACACTTGCCTCCGAAATAACTC
PER2-R	AGCGCACGGCTGTCTGA
NR1D1-F	ACAAGCAACATTACCAAGCTGA

NR1D1-R	CACTCCATAGTGAAGCCTGA
KDM6B-F	AGGAGTCACTGCAGGAGGAGAG
KDM6B-R	CTGCTGGGAGAGGTTCTGTA

Table. S1 Primers

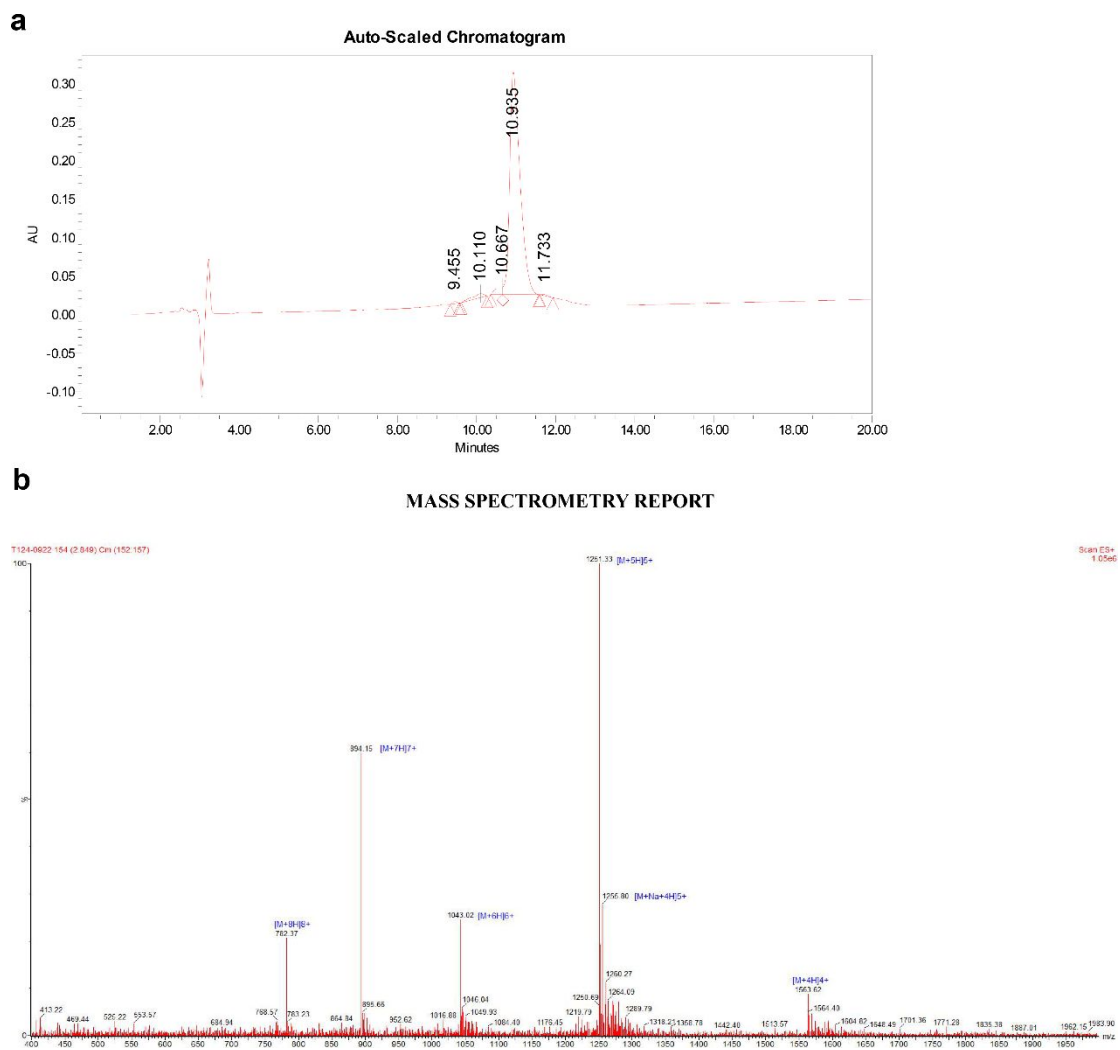


Figure. S1 Purified SDSSD-APA peptide was measured using (a) High performance liquid chromatography (HPLC) and (b) Mass spectrometry (MS).

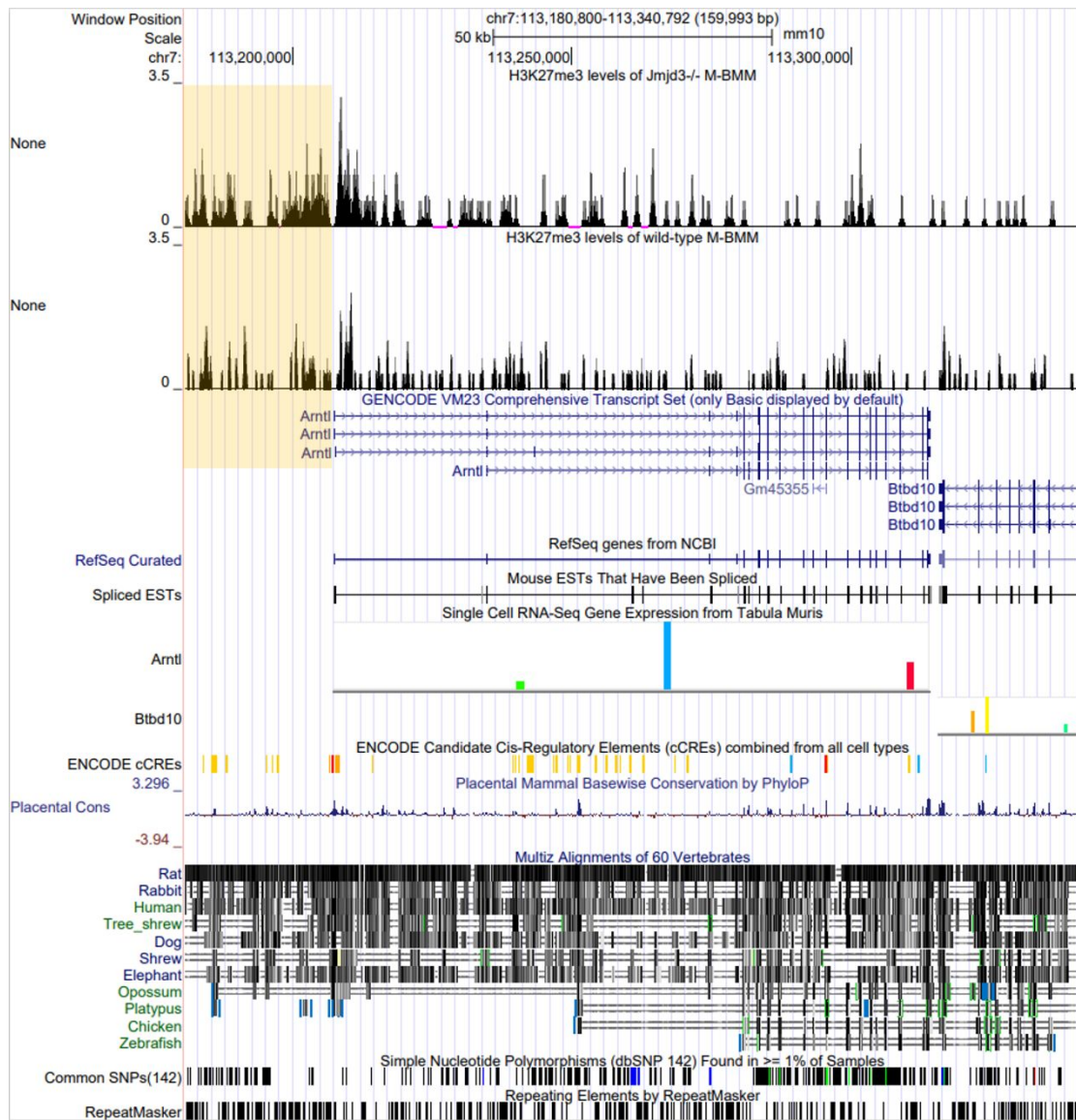


Figure. S2 ChIP-seq analysis results of H3K27me3 levels of WT BMDMs and KDM6B (*Jmjd3*) ^{-/-} BMDMs¹.

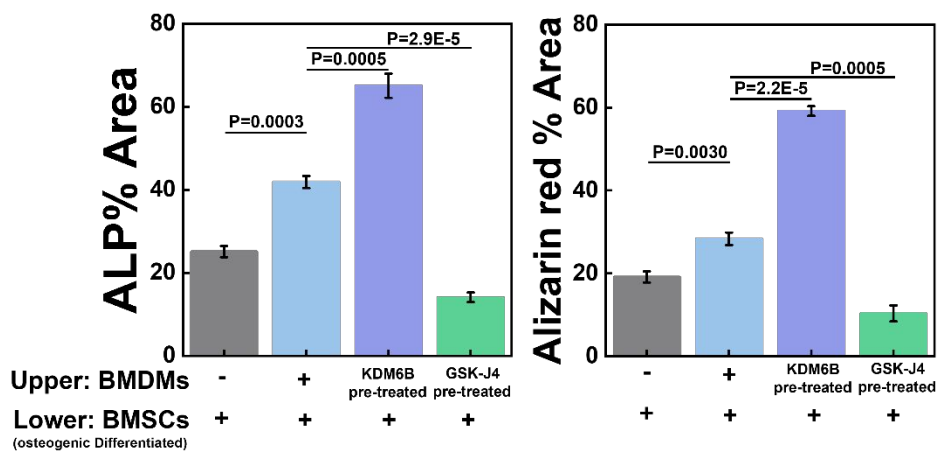


Figure. S3 Statistical results of ALP staining and Alizarin Red staining in Figure. 4e.

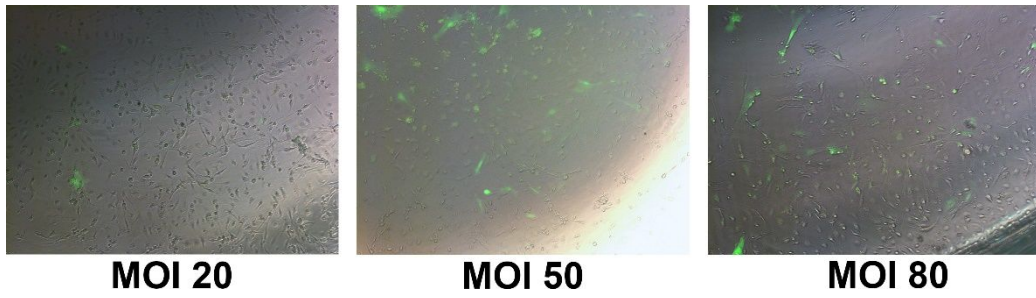


Figure. S4 MOI of BMAL1-overexpression lentivirus infection in BMDMs.

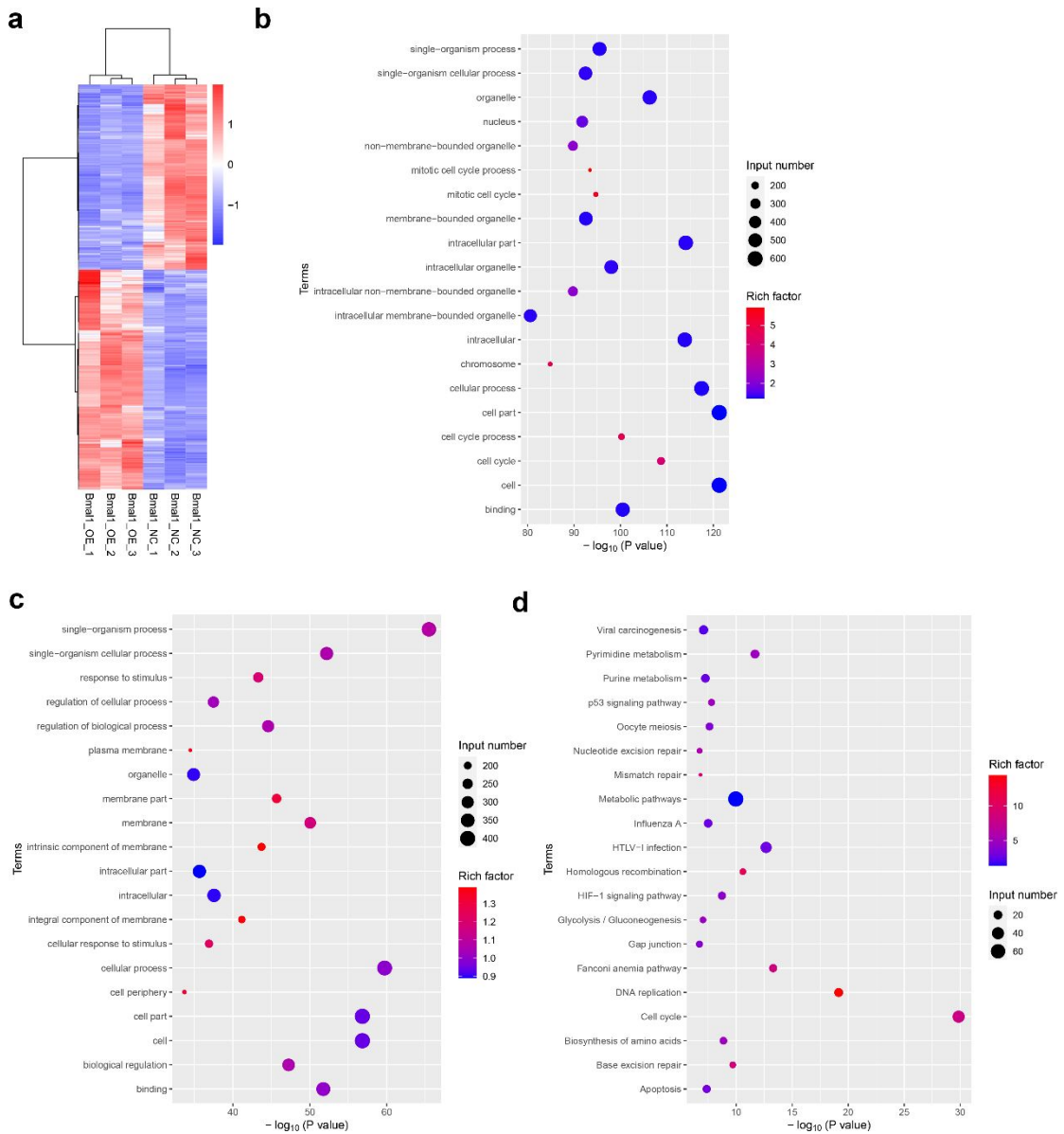


Figure. S5 (a) heatmap of differentially expressed genes. (b) GO analysis results of UP-regulated genes. (c) GO analysis results of Down-regulated genes. (d) KEGG analysis results of UP-regulated genes.

REFERENCE

- (1) Satoh, T.; Takeuchi, O.; Vandebon, A.; Yasuda, K.; Tanaka, Y.; Kumagai, Y.; Miyake, T.; Matsushita, K.; Okazaki, T.; Saitoh, T.; Honma, K.; Matsuyama, T.; Yui, K.; Tsujimura, T.; Standley, D. M.; Nakanishi, K.; Nakai, K.; Akira, S. The Jmjd3-Irf4 Axis Regulates M2 Macrophage Polarization and Host Responses against Helminth Infection. *Nat Immunol* **2010**, *11* (10), 936–944.
<https://doi.org/10.1038/ni.1920>.