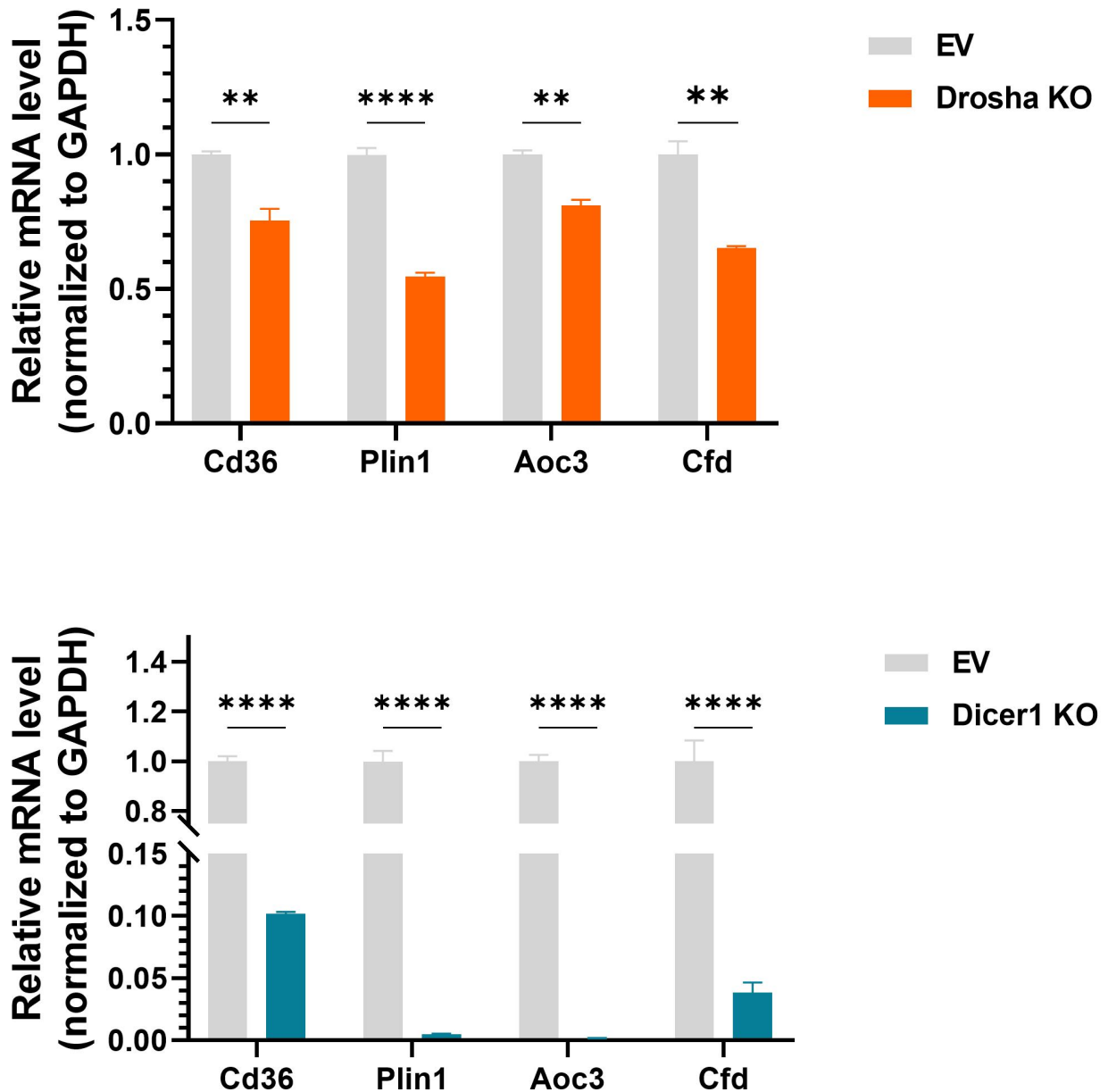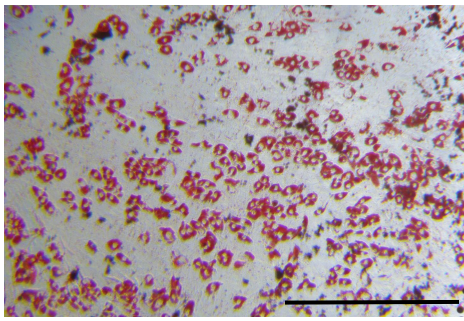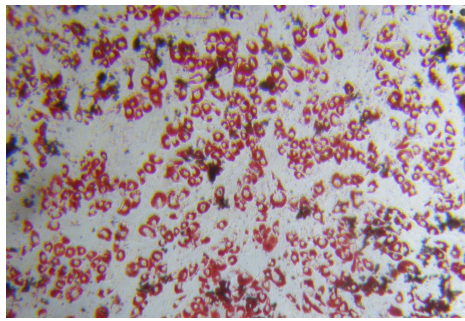**Supplementary Figure 1. Analysis of transcript data from Dicer1 KO OP9 cells. A** MSigDB Chemical and genetic perturbations pathway enrichment analysis of downregulated DEGs in Dicer1 KO. **B** Wiki pathway enrichment analysis of upgrated DEGs in Dicer1 KO. **C** GTRD transcription factor targets MSigDB KEGG pathway in Dicer1 KO.
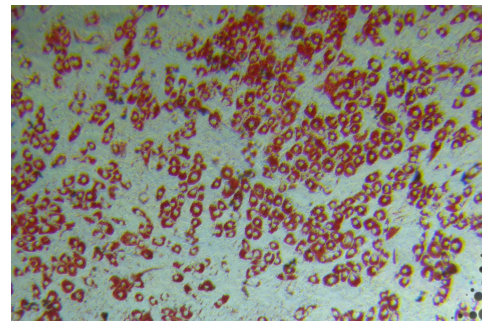
Supplementary Figure 2. qPCR verified the genes that were enriched with the most significant differences in PPAR pathways. Results were plotted as Mean ± SEM; n = 3 independent experiments. *p* values were generated by unpaired Student's t test. (******p <0.01, ****p <0.0001.)
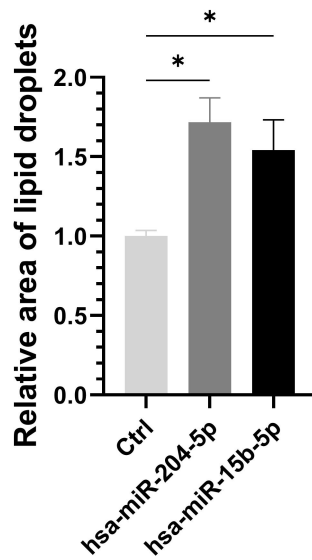
Supplementary Figure 3. The adipogenic ability was upregulated after transfection with mimics.
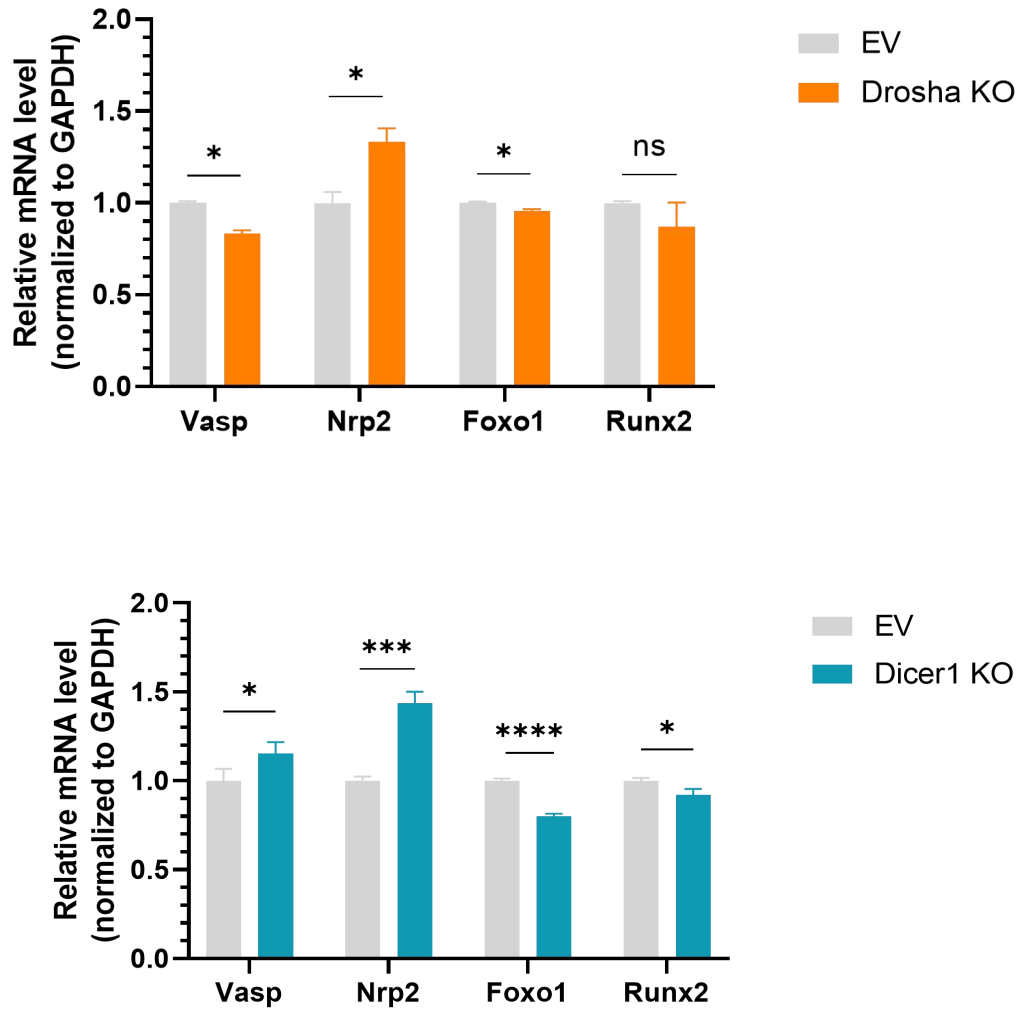Results were plotted as Mean ± SEM; n = 3 independent experiments. p values were generated by unpaired Student's t test. (*p <0.05) (Scale bars, 50 μm.)

Supplementary Figure 4. qPCR analysis of established target genes of miR-204 or miR-15b. Results were plotted as Mean ± SEM; n = 3 independent experiments. *p* values were generated by unpaired Student's t test. (*p <0.05, ***p<0.001.)