#### **Supplementary information**

## Decitabine augments chemotherapy-induced PD-L1 upregulation for PD-L1 blockade in colorectal cancer

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# Figure S1. Overexpression of DNMT1 significantly reduced tumor PD-L1 expression

SW480 and HCT116 cells were separately transfected with HA-DNMT1 and HA-DNMT3a for 48 hrs and then analyzed by immunoblotting. The quantification of these results is shown. \*p<0.05.



#### Figure S2. RNA-seq indicated that differential gene expression induced by DAC.

- A. The cluster analysis of differentially expressed genes among four groups.
- B. The volcano plot showed the differential expression genes between DAC and PBS group (149 upregulated genes and 15 down-regulated genes).
- C. The volcano plot showed the differential expression genes between DAC+OXP and PBS group (115 upregulated genes and 26 down-regulated genes).



#### Figure S3. The GSEA plot for comparison between DAC and PBS group.

- A. The GSEA plot for the signature "Interferon-alpha", which represents a set of IFN- $\alpha$ -related genes that exhibited upregulated expression after treatment with DAC for 5 consecutive days, is shown.
- B. The GSEA plot for the signature "IL6-JAK-STAT3 signaling." after treatment with DAC for 5 consecutive days.
- C. The GSEA plot for the signature "inflammatory response." after treatment with DAC for 5 consecutive days.



#### Figure S4. The GSEA plot for comparison between DAC and PBS group.

- A. The GSEA plot for the signature "Interferon-gamma", which represents a set of IFN-γ-related genes that exhibited upregulated expression after treatment with DAC (consecutive days) and OXP for (2 times with 3-days intervals), is shown
- B. The GSEA plot for the signature "Interferon-alpha", which represents a set of IFN- $\alpha$ -related genes that exhibited upregulated expression after treatment with DAC (consecutive days) and OXP for (2 times with 3-days intervals), is shown.
- C. The GSEA plot for the signature "IL6-JAK-STAT3 signaling." after treatment with DAC (consecutive days) and OXP for (2 times with 3-day intervals).
- D. The GSEA plot for the signature "inflammatory response." after treatment with DAC (consecutive days) and OXP for (2 times with 3-day intervals).

Figure 1A

#### Raw data



### Figure 1C





b-Actin



### Figure 2C











#### SW480

#### HCT116







Figure 2F





Figure 2G

G





### Figure 3A





#### Figure 3B







### Figure 3C





### Figure 3D



# Figure 4B

В











