



**Supplementary Figure 7 Tumor tissue ITGB7 expression level represents the CD8<sup>+</sup> T and B cell infiltration level, and the ITGB7 expression level on CD8<sup>+</sup> T cells.** **A**, The mRNA expression level of CD3E, ITGB7 and ITGB2 in paired normal and tumor tissue of TCGA cohort. Data were analyzed by Wilcoxon test and *P* values were indicated. **B**, Quantification of  $\beta$ 2<sup>+</sup> cells in colorectal tumor tissue and adjacent normal tissue (n = 20). Data represent mean $\pm$ SD. Student *t* test. ns, not significant. **C**, Representative images of  $\beta$ 2<sup>+</sup> cells in colorectal tumor tissue and adjacent normal tissue. Scale bar, 100  $\mu$ m. **D**, Heatmap showing the correlation between ITGB7 expression and tumor infiltrating total T, CD8<sup>+</sup> T, CD4<sup>+</sup> T and B cells in TCGA cohort. The values shown below the heatmap represent the Spearman's correlation coefficient (R) calculated between each type of immune cell and ITGB7 expression. The infiltration of each type of immune cell were estimated by ssGSEA. **E**, The infiltration of T, CD8<sup>+</sup> T and B cells in normal, ITGB7<sup>hi</sup> and ITGB7<sup>lo</sup> groups of TCGA cohort. **F**, The expression of ITGB7 on CD8<sup>+</sup> T cells (determined by Cibersortx) of normal, ITGB7<sup>hi</sup> and ITGB7<sup>lo</sup> groups in TCGA cohort. Data represent mean $\pm$ SD. Data in E and F were analysed by Kruskal-Wallis test and Dunn test was used to perform the post-hoc analysis for multiple comparisons. \*\*\**P* < 0.001. **G**, Representative image showing two types of tumor tissues and adjacent normal tissue from CRC patients. Type-1 has relative low T cell infiltration, with most T cells express ITGB7; Type-2 has relative high T cell infiltration but very few T cells express ITGB7. White arrowheads indicate the colocalization of CD3 and ITGB7. Scale bar, 100  $\mu$ m.