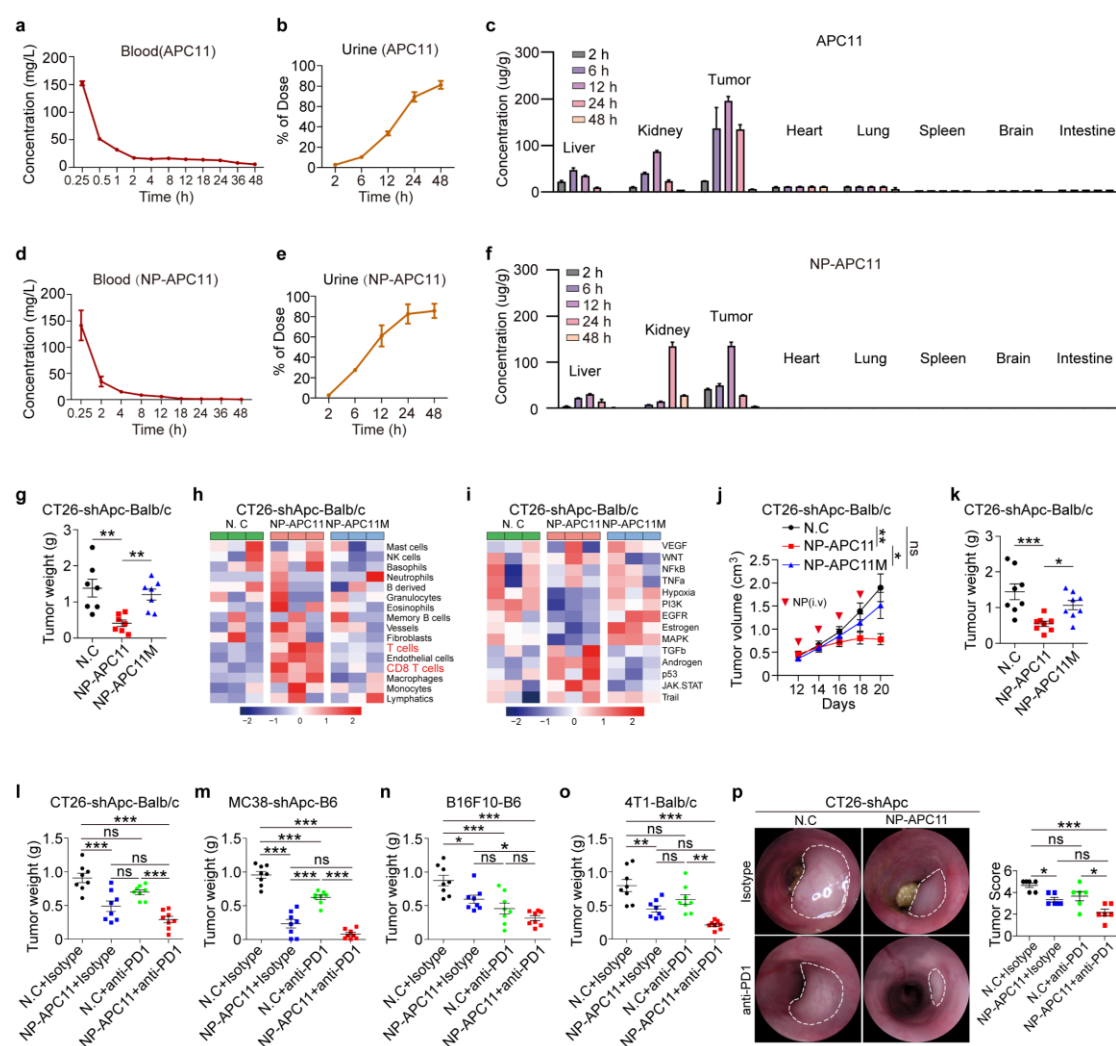




Supplementary information, Fig. S9. Additional data on the effect of APC11 on tumor immunotherapy. **a**, Serum concentration of FITC labeled APC11 peptide [iRGD-PEG2-(Lys)-FITC-PEG2-TSV] was measured by detecting relative fluorescence intensity of FITC in WT Balb/c after administration at indicated time points. Data was presented as relative fluorescence intensity to untreated mice at indicated time point. **b**, Urine concentration of FITC labeled APC11 peptide [iRGD-PEG2-(Lys)-FITC-PEG2-TSV] was measured by detecting relative fluorescence intensity of FITC in WT Balb/c after administration at indicated time points. **c**, Tissue targeting was assessed by detecting relative fluorescence intensity of FITC in brain, intestine, heart, lung, spleen, kidney, liver and tumor of FITC labeled APC11 peptide [iRGD-PEG2-(Lys)-FITC-PEG2-TSV] treated CT26-shAPC tumor bearing mice after administration at indicated time points. **d**, Serum concentration of Cy5 labeled NP-APC11 peptide [Cy5-iRGD-TSV-HA2] was measured by detecting relative fluorescence intensity of Cy5 in WT Balb/c after administration at indicated time points. **e**, Urine concentration of Cy5 labeled NP-APC11 peptide [Cy5-iRGD-TSV-HA2] was measured by detecting relative fluorescence intensity of Cy5 in WT Balb/c after administration at indicated time points. **f**, Tissue targeting was assessed by detecting relative fluorescence intensity of Cy5 in brain, intestine, heart, lung, spleen, kidney, liver and tumor of Cy5 labeled NP-APC11 peptide [Cy5-iRGD-TSV-HA2] treated CT26-shAPC tumor bearing mice after administration at indicated time points. **g**, Tumor weight in Figure 7F was measured. $n = 8$. **h**, Heatmap shows immune infiltration analysis (mMCPCounter) of

APC11 or APC11M treated CT26-shApc tumors. **i**, Heatmap shows pathway responsive genes for activity inference from gene expression (progeny) analysis of APC11 or APC11M treated CT26-shApc tumors. **j**, **k**, Apc-silenced CT26 cells were injected subcutaneously (1×10^7 cells) into Balb/c mice. Subsequently, 200 μ g NP-APC11 or NP-APC11M was injected intraperitoneally every other day at indicated time when tumor reached 500 mm³. Tumor growth (**j**) and weight (**k**) were measured. $n = 8$. **l-o**, Indicated cells were injected subcutaneously (1×10^7 cells) into mice, anti-PD-1 antibodies were injected intraperitoneally and NP-APC11 were injected via caudal vein. Tumor growth was monitored and tumor weight was measured. $n = 8$ for each group, two-way ANOVA for tumor volume, and one-way ANOVA for tumor weight. **p**, Apc-silenced CT26 cells were orthotopically inoculated to Balb/c mice, and anti-PD-1 antibodies were injected intraperitoneally and NP-APC11 were injected via caudal vein. Tumor growth were monitored and scored by colonoscopy. $n = 6$, one-way ANOVA.