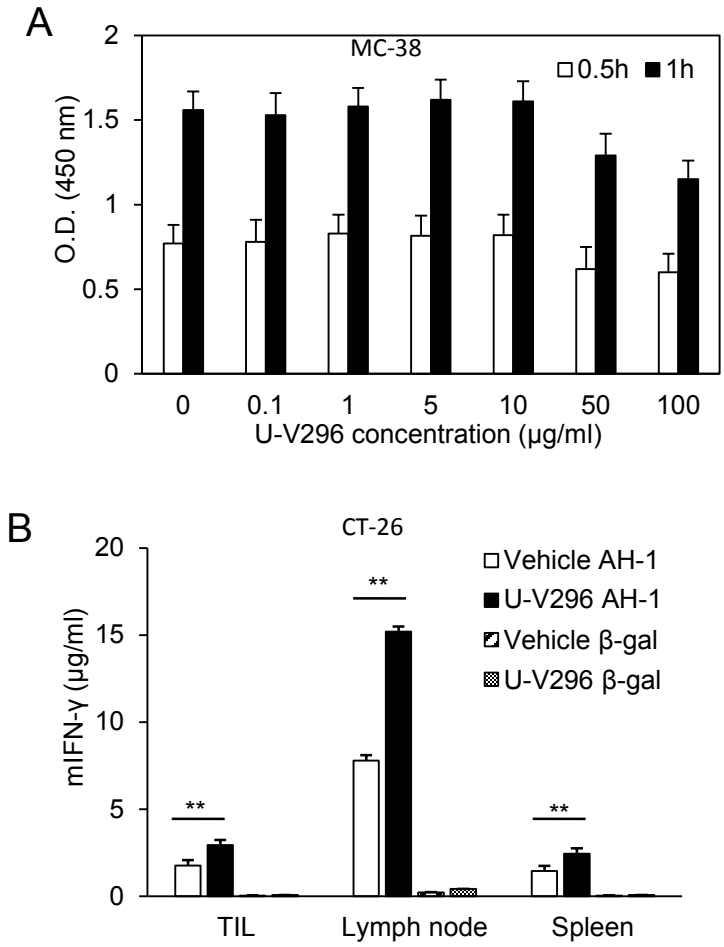
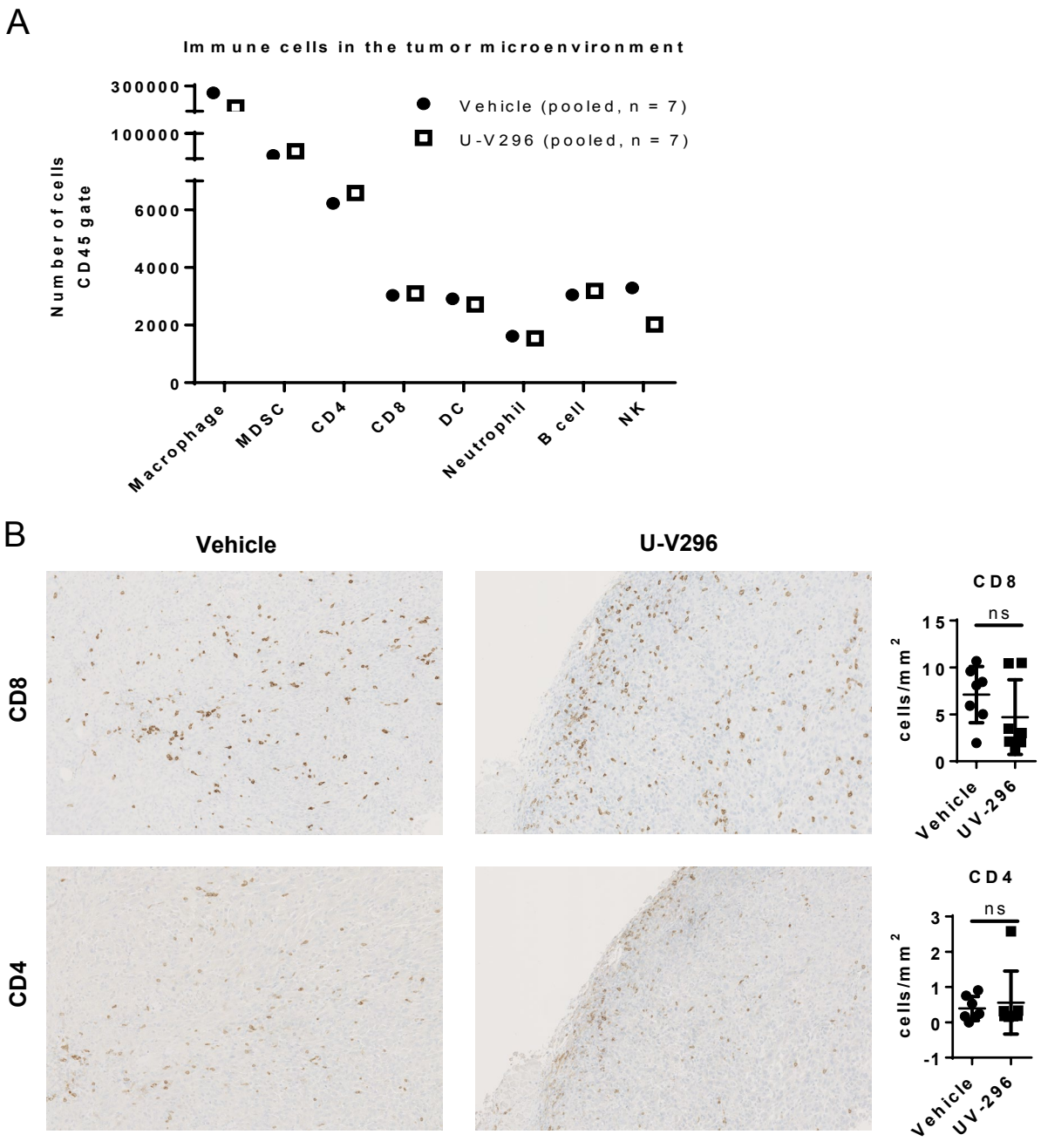
Supplementary Figure S1



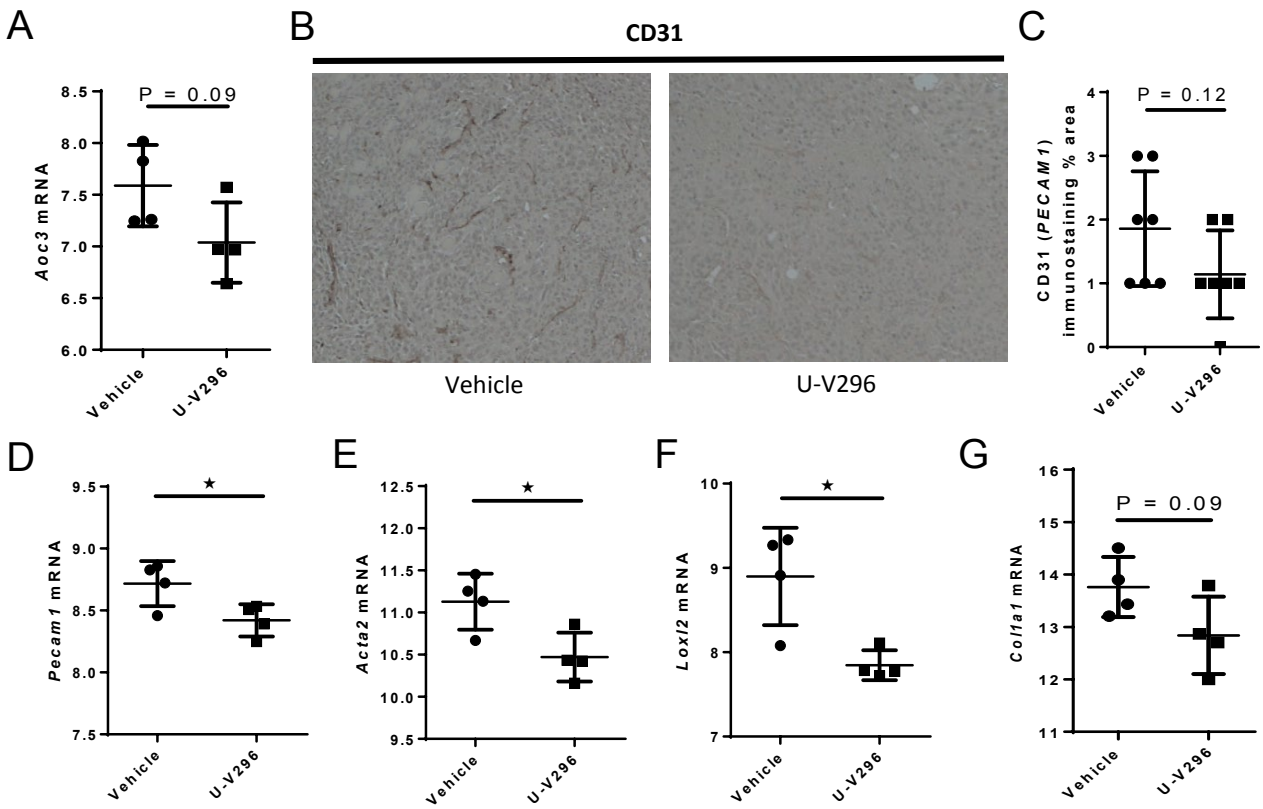
Supplementary Figure S1.
A, No toxicity of U-V296 on MC-38 tumor cell lines was observed in the WST-1 assay until a concentration of 10 μg/mL.B, Administration of U-V296 improved the activity of CTLs in BALB/c mice bearing CT26 subcutaneous tumors. Specific activation of the CT26 tumor antigen (AH-1) in the cytotoxic T lymphocyte induction assay was observed in $CD8^+$ T cells sorted from the draining tumors, lymph nodes, and spleens. **P* < 0.05; ***P* < 0.01. (related to Fig. 2).

Supplementary Figure S2



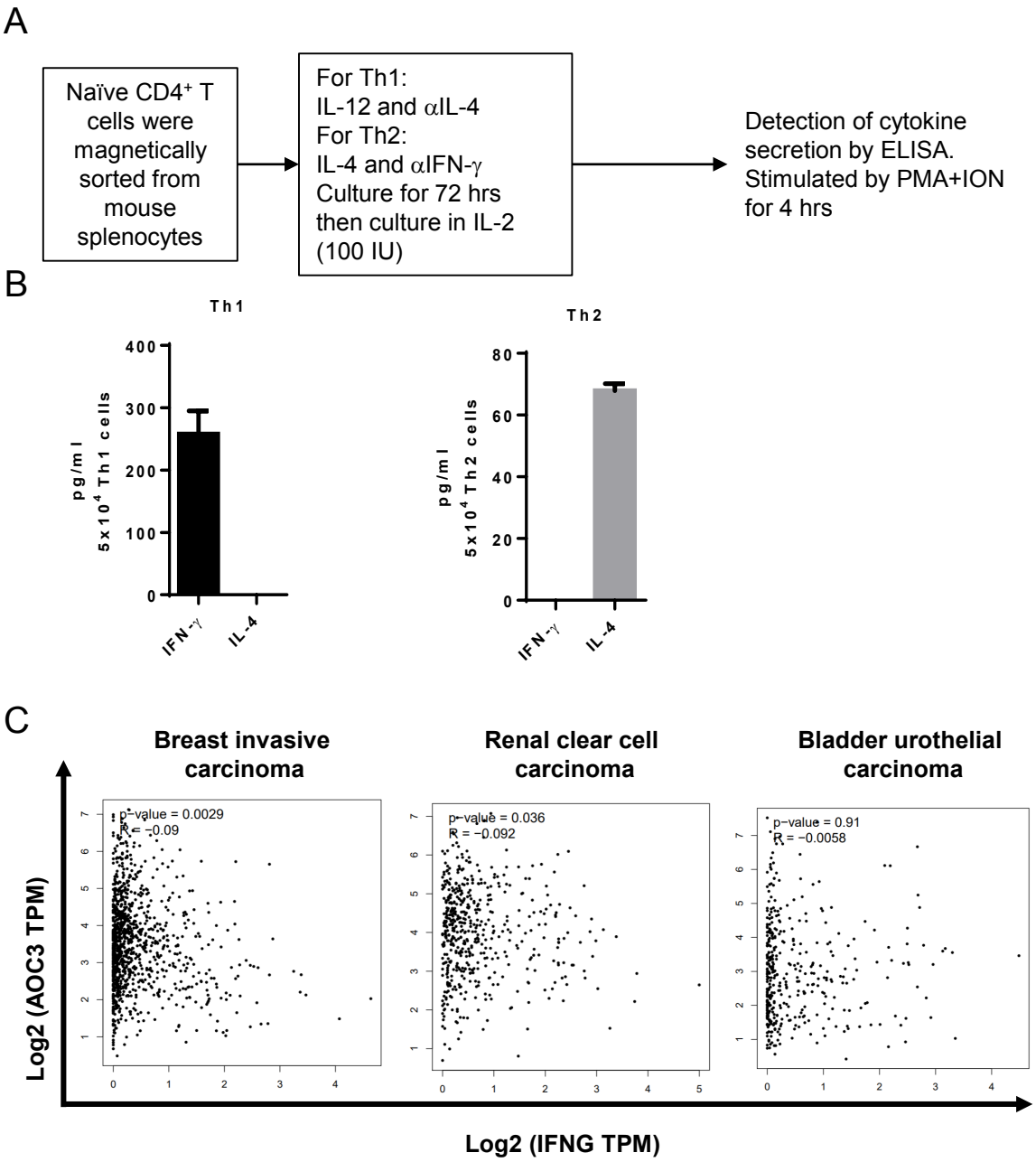
Supplement Figure S2.
Changes in the immune cell infiltration were not observed upon administration of U-V296, which was analyzed using FACS and immunohistochemistry. A, The number of immune cells in the tumor (pool of seven mice). B, The amount CD4 and CD8 T cells were comparable between the control and treatment groups.

Supplementary Figure S3



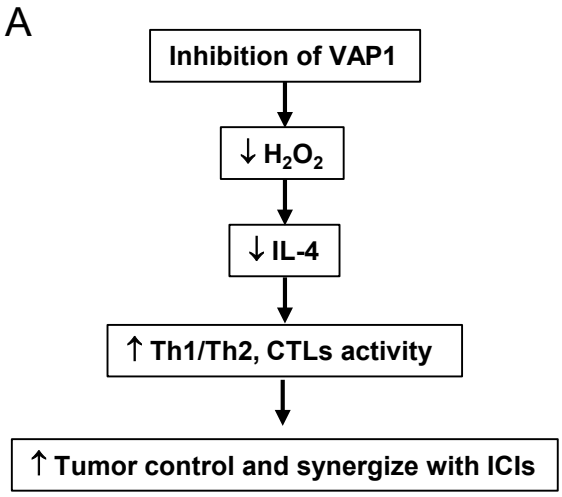
Supplementary Figure S3.
The effect of VAP-1 inhibition on the expression of VAP-1 (*AOC3*), angiogenesis, and fibrosis.
A, Little or no effect of VAP-1 inhibition on the expression of VAP-1 mRNA (*AOC3*) in TME. **B**-C, An insignificant decrease in the expression of *Pecam1*, a marker of angiogenesis, was detected through immunohistochemistry. D, The expression of *Pecam1* mRNA was decreased after VAP-1 treatment. E-F, The expression of *Acta2*, *Loxl2*, and *Col1a1*, which are markers of fibrosis, was decreased after inhibition of VAP-1.

Supplementary Figure 4



Supplement Figure S4.
Generation of mouse Th1 and Th2 cells *in vitro*. A, Scheme for the *in vitro* generation of mouse Th1 and Th2 cells. B, Mouse Th1 cells generated *in vitro* producing IFN-γ but not IL-4 upon stimulation. Mouse Th2 cells generated *in vitro* producing IL-4 but not IFN-γ upon stimulation. C, The expression of AOC3/VAP-1 was non-significant but negatively correlated with that of IFN-γ in tumors highly expressing AOC3 (i.e., breast invasive carcinoma (BRCA), renal clear cell carcinoma (KIRC), and bladder urothelial carcinoma (BLCA)).

Supplementary Figure S5



Supplementary Figure S5.
Inhibition of VAP-1 reduced the concentration of the highly potent signaling molecule H_2O_2, which, at higher concentrations, supported the expression of the Th2- or M2-associated phenotypes possibly influenced by IL-4. Improvement of the Th1/Th2 cytokine balance enhanced the generation of CTLs and synergized with ICIs.