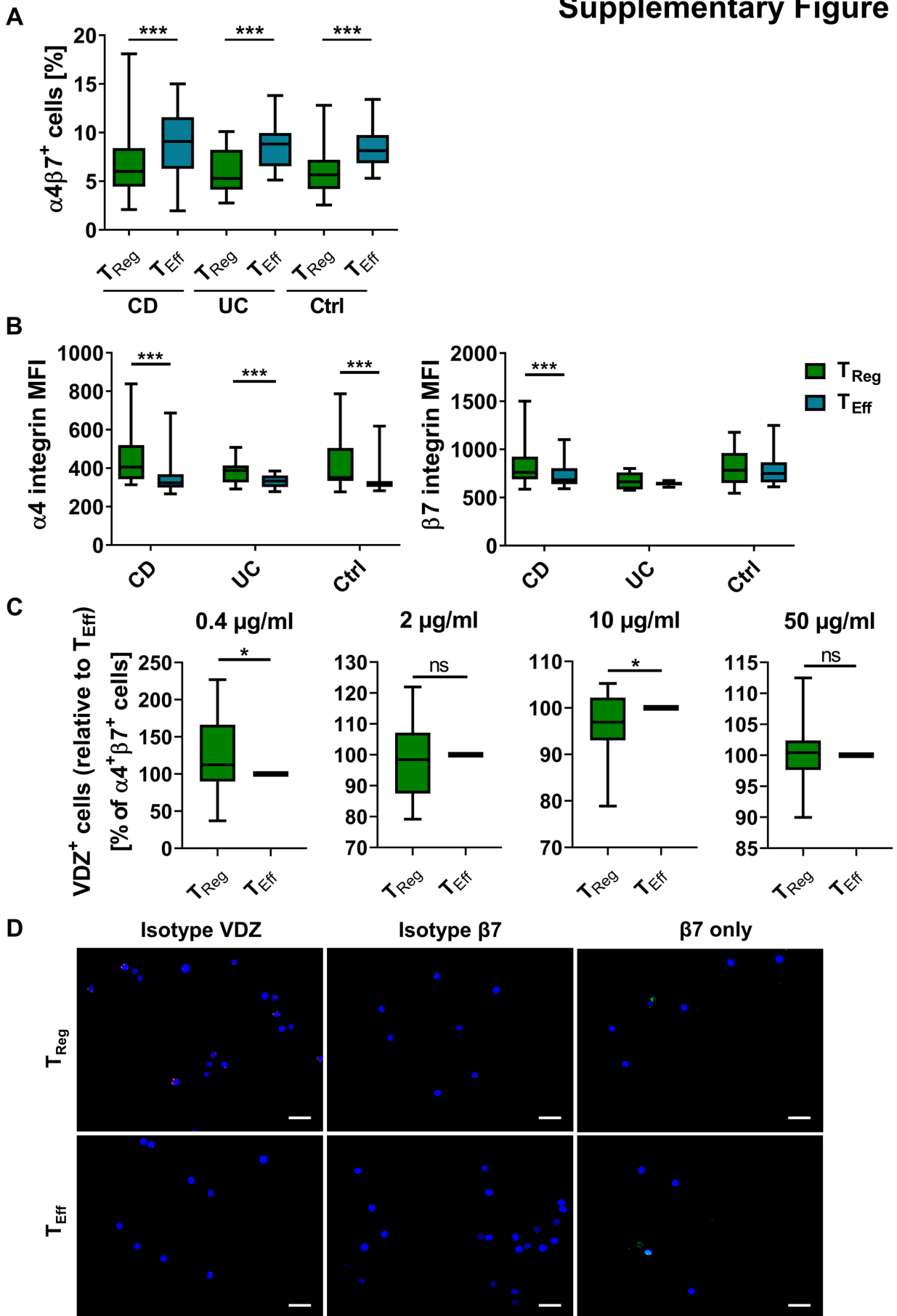


## Supplementary Figure 3



**Supplementary Figure 3:  $\alpha 4$  and  $\beta 7$  integrin expression on  $T_{Reg}$  and  $T_{Eff}$  cells, vedolizumab binding to memory  $CD4^+$  T cells and controls for VDZ binding.**

**(A)** Quantitative flow cytometry of  $\alpha 4^+ \beta 7^+$   $T_{Reg}$  and  $T_{Eff}$  cells in patients with UC and CD compared with healthy controls.  $n = 17-28$  IBD patients or healthy controls as indicated.

**(B)** Mean fluorescence intensity (MFI) of  $\alpha 4$  and  $\beta 7$  integrin on  $T_{Reg}$  and  $T_{Eff}$  cells in patients with UC and CD and in healthy controls.  $n = 17-28$  IBD patients or healthy controls as indicated.

**(C)** Quantitative flow cytometry of VDZ<sup>+</sup> cells after gating on  $\alpha 4 \beta 7^+$   $CD45RO^+$   $T_{Reg}$  and  $T_{Eff}$  cells following incubation with the indicated concentrations of fluorescently labelled vedolizumab. Quantitative data are expressed relative to  $T_{Eff}$  cells.  $n = 25$  IBD patients and healthy controls.

**(D)** Representative fluorescence microscopy of FACS-purified  $T_{Reg}$  and  $T_{Eff}$  cells stained with isotype controls for  $\beta 7$  antibody (green) and VDZ (red) and counterstained with Hoechst (blue); Scale bar 10  $\mu m$ . Representative images from 1 out of 6 independent experiments (cells purified from leukocyte cones).

Statistical comparisons were performed using paired t-test (A, C), 2way ANOVA with Sidak's multiple comparison test (B)

Sample donor characteristics are listed in *Supplementary Table S13*.