

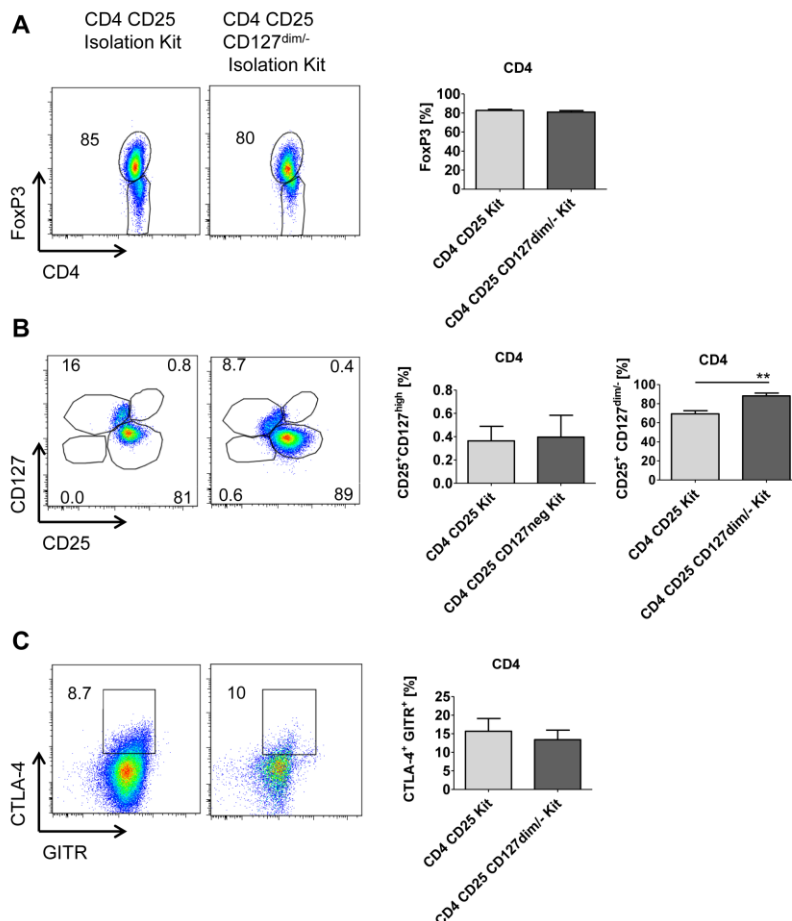
Supplemental material:

Supplemental table 1: Clinical data on patients recruited in the study

Supplemental Figure 1: Comparative characterization of Treg enriched populations isolated on the basis of the markers CD4+CD25+ or CD4+CD25+CD127dim/-

(a-c) Treg enriched cells were isolated with Miltenyi's human CD4+CD25+ or CD4+CD25+CD127dim/- *Regular T Cell Isolation Kits*. Cells were stained with antibodies to FoxP3 (panel a), CD127 (panel b), CTLA-4 and GITR (panel c). Both Treg enriched populations showed high and equal levels of FoxP3 positivity and did not differ in the expression of the Treg markers CTLA-4 and GITR.

Supplemental Figure 1

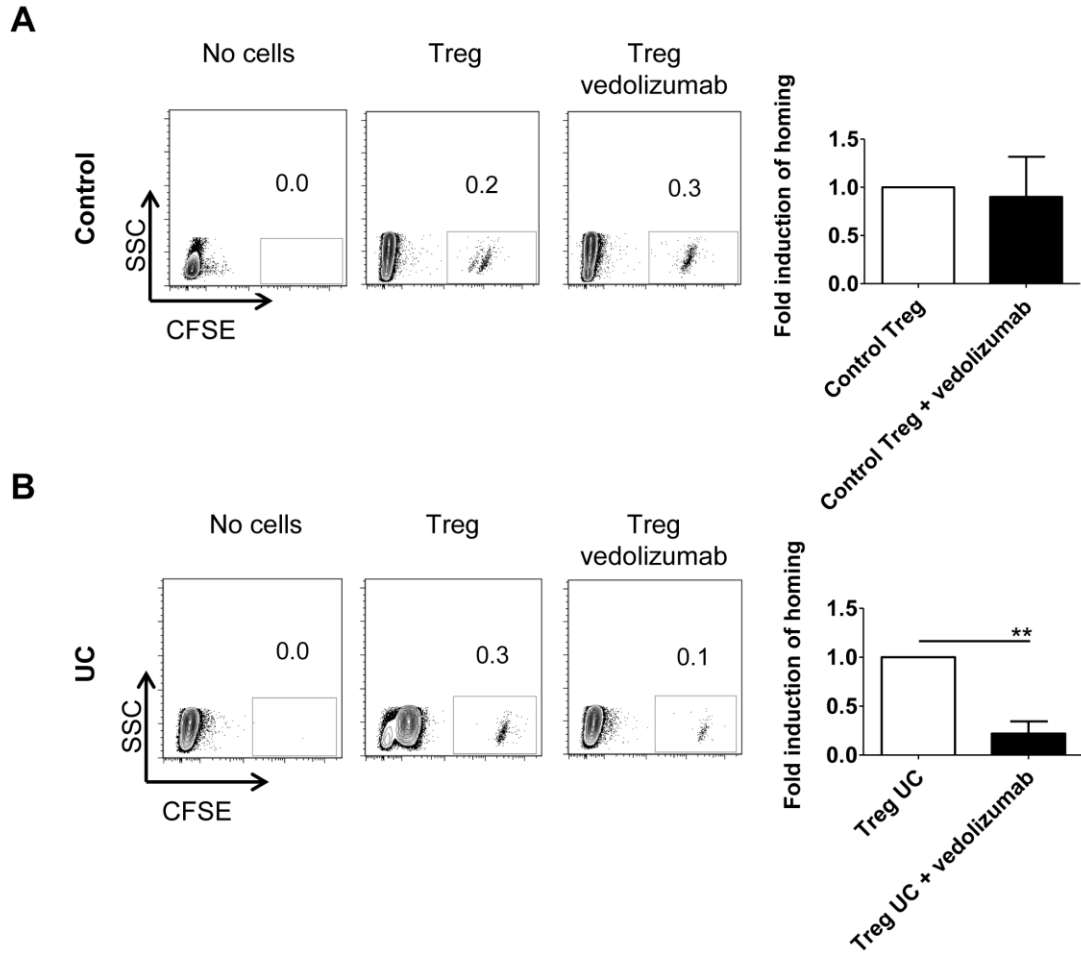


Supplemental Figure 2: Vedolizumab suppresses homing of human CD4+CD25+CD127dim/- Treg cells from UC but not control patients to the inflamed colon

(a) FACS analysis of lamina propria cells from DSS-treated NSG mice in the presence or absence of Treg cell transfer from control patients and vedolizumab treatment as indicated. Left panels: Representative FACS analysis of CFSE+ human CD4+CD25+CD127dim/- T cells from control patients in the lamina propria of DSS-treated NSG mice. Right panel: Quantitative analysis of homing of CFSE-labelled human Treg-enriched CD4+CD25+CD127dim/- T cells from control patients to the inflamed colon in DSS-treated NSG mice in the presence or absence of vedolizumab treatment (n= 4).

(b) FACS analysis of lamina propria cells from DSS-treated NSG mice in the presence or absence of Treg cell transfer from UC patients and vedolizumab treatment as indicated. Left panels: Representative FACS analysis of CFSE+ human CD4+CD25+CD127dim/- T cells from UC patients in the lamina propria of DSS-treated NSG mice. Right: Quantitative analysis of homing of CFSE-labelled Treg-enriched CD4+CD25+CD127dim/- T cells from UC patients to the inflamed colon in DSS-treated NSG mice (n= 3). Significant differences are indicated.

Supplemental Figure 2



Supplemental Video 1: Cell homing to the inflamed gut in the humanized mouse model

Freshly isolated PBMCs were CFSE-labelled and transferred to DSS-treated mice together with Texas red dextran after Hoechst dye injection as described in the methods section. Following preparation of the mouse colon, sequential images of the homing process were taken. Bowel contractions were compensated as far as possible by relative shift of the single images and a video was created. Apart from cells floating in the blood stream (white arrows), a rolling cell (yellow arrows) and a homing cell performing migratory movements can be observed (light blue arrows). The initial position of the migration cell is marked by a dotted line. The white bar in the right lower corner equals 100 μ m.