

### **Supporting Information Figure 1. Lamina Propria CD4+ cell T-cell populations in IBD**

(A) Representative histogram depicting flow cytometry data of lamina propria (LP) CD4+ T cells; x-axis is numbers of CD73+ cells, and y-axis is cell count. Grey histogram, isotype control; red histogram, active IBD; blue histogram, inactive IBD. Data shown are representative of 3 independent experiments.

(B) Bar chart of the % CD39+CD73+ cells amongst CD4+ T cells obtained from the lamina propria of healthy individuals (“normal”) and patients with active IBD (n=3 per group). Data are shown as mean + SD of 6 samples pooled from 2 independent experiments performed. \*p<0.05 by Student’s t-test.

(C) Bar chart of the % CD161+CD73+ cells amongst CD4+ T cells obtained from the lamina propria of healthy individuals (“normal”) and patients with active IBD (n=3 per group). Data are shown as mean + SD of 6 samples pooled from 2 independent experiments performed. \*p<0.05 by Student’s t-test.

### **Supporting Information Figure 2. Peripheral Blood CD4+ T-cell populations in IBD**

(A) Bar chart of the % of CD73+ cells, grouped according to CD45RO expression (hi / lo) in CD4+ T cells obtained from the peripheral blood of patients with active IBD, based on flow cytometry (n=3 per group). Data are shown as mean + SD of 6 samples pooled from 2 independent experiments performed. \*p<0.05 by Student’s t-test.

(B) Representative example of a flow cytometry density plot of CD25 (y-axis) and FOXP3 (x-axis) expression in peripheral blood CD4+ T cells with histograms showing expression of CD73 (left) and CD39 (right) in the two populations (top and bottom) gated on the density plot. The proportion of cells positive for each ecto-enzyme is indicated as a percentage in the top right hand corner. Data shown are representative of 3 independent experiments.

### **Supporting Information Figure 3. Characterisation of CD73+CD4+ T cells**

(A) Representative example of a flow cytometry density plot of CD25 (x-axis) and FOXP3 (y-axis) expression in isotype control (left), lamina propria CD73+CD4+ T cells (center) and CD73-CD4+ T cells (right). The proportion of cells positive for each marker is indicated as a percentage in the top right hand corner. Data shown are representative of 3 independent experiments.

(B) Illustrative example of thin layer chromatography of the products of <sup>14</sup>C-AMP hydrolysis following ex-vivo incubation with CD73+CD4+ (right box) and CD73-CD4+ negative (left box) human peripheral blood T-cells isolated by FACS. Each lane represents a time-point for the duration of incubation with <sup>14</sup>C-AMP (from 0 to 30 minutes). <sup>14</sup>C labeled nucleotide standards run in parallel are illustrated on the far left (ADO, adenosine). Data shown are representative of 2 independent experiments.

#### **Supporting Information Figure 4. CD73 & IL-17A expression in lamina propria CD4+ T cells**

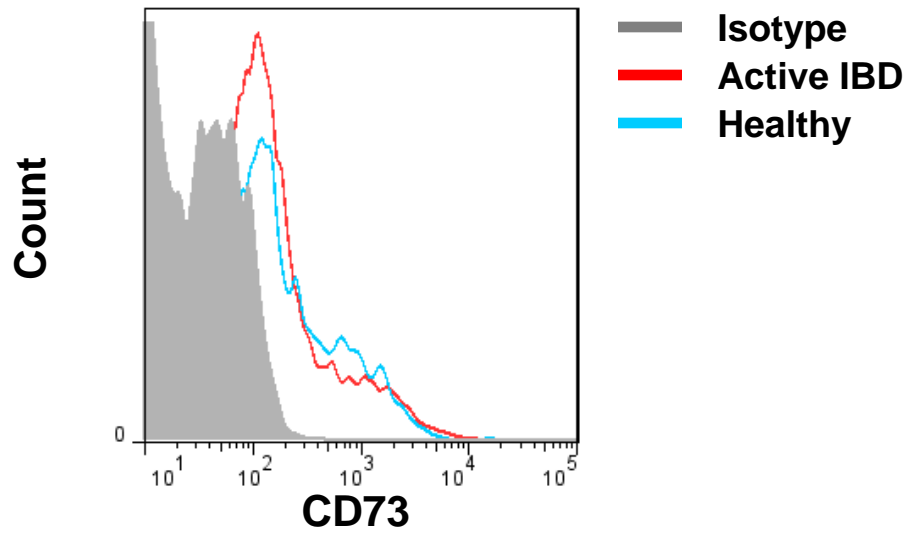
Representative example of a flow cytometry density plot of CD73 (x-axis) and IL-17A (y-axis) expression in lamina propria CD4+ T cells from patients with inactive IBD (left), and active IBD (right). The proportion of cells positive for each marker is indicated as a percentage in the top right hand corner. Data shown are representative of 2 independent experiments.

#### **Supporting Information Figure 5. Regulated Expression of CD73 in CD4+ T cells**

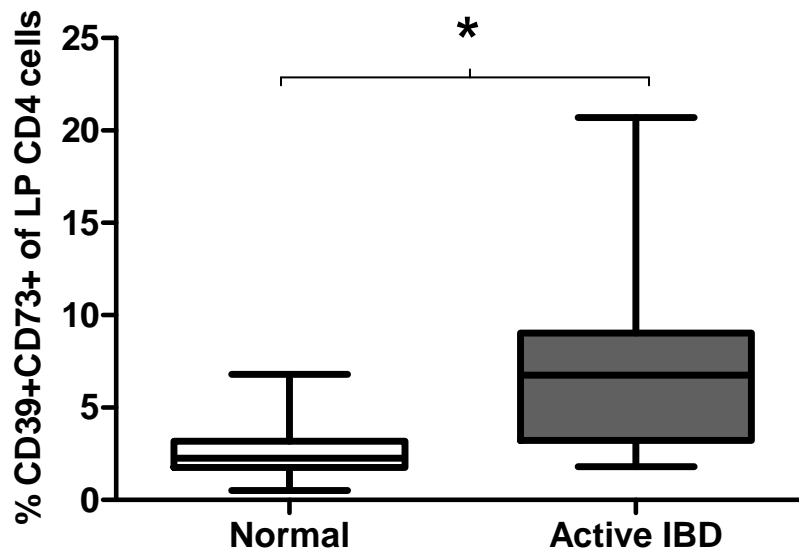
Bar chart of the % CD73+ expression in CD4+ T cells from healthy peripheral blood (n=3 samples) treated with TNF (200 ng/ml) for 12 hours in the presence of PBS (black columns), Infliximab 1000 µg/ml (white columns), Infliximab 50 µg/ml (dotted column) or murine IgG1 1000 µg/ml (striped column) . Data are shown as mean + SD of 12 samples pooled from 2 independent experiments performed. \*p<0.05 by Student's t-test.

Supp\_Fig\_1

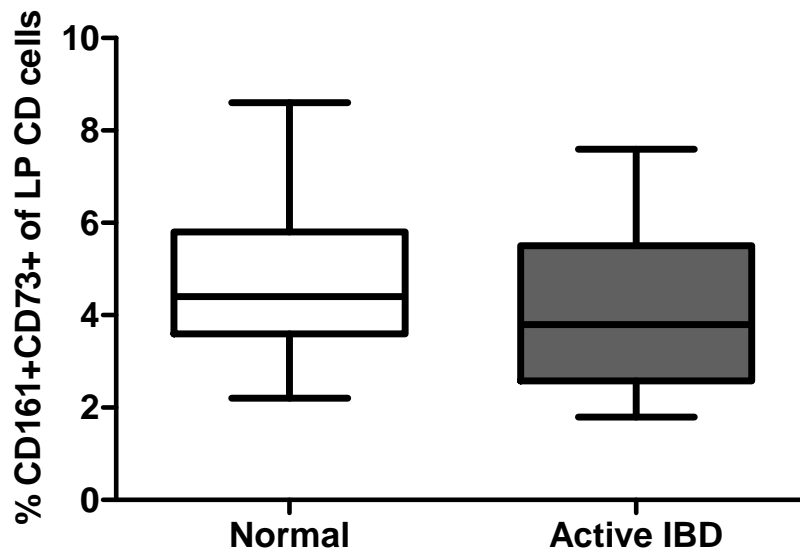
A



B

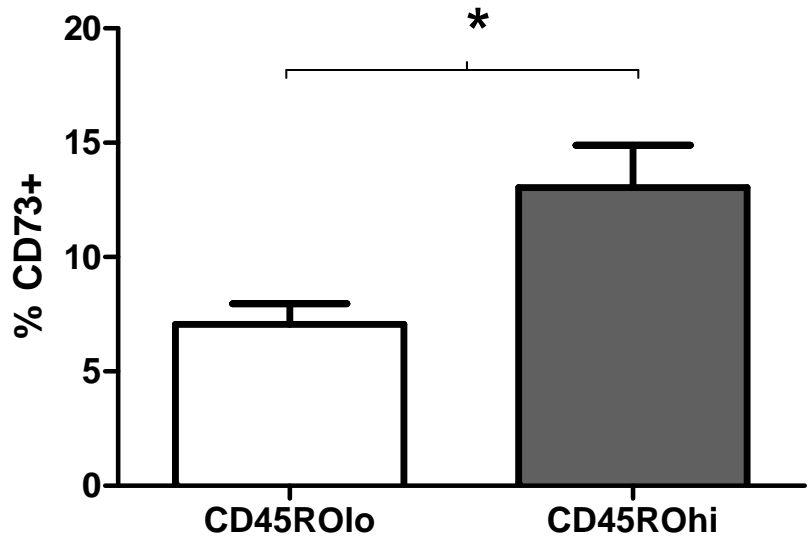


C

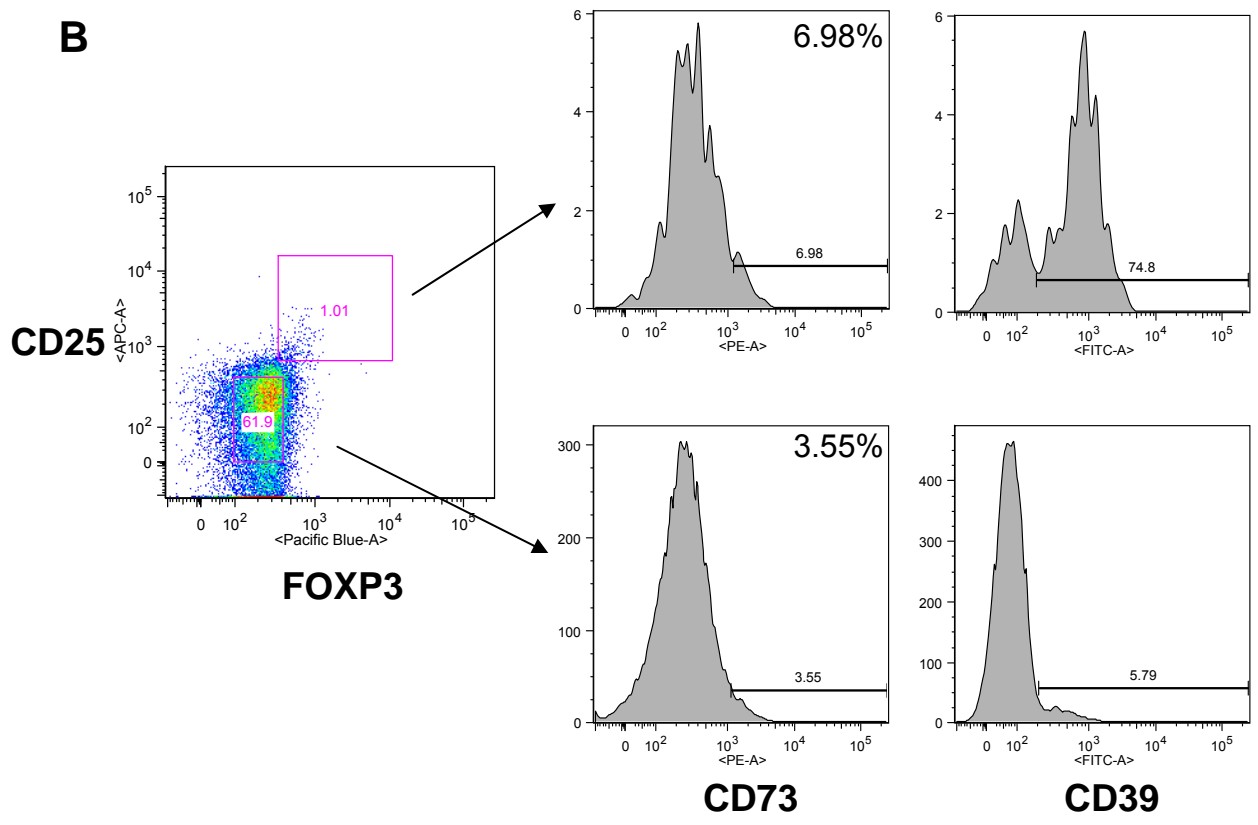


# Supp\_Fig\_2

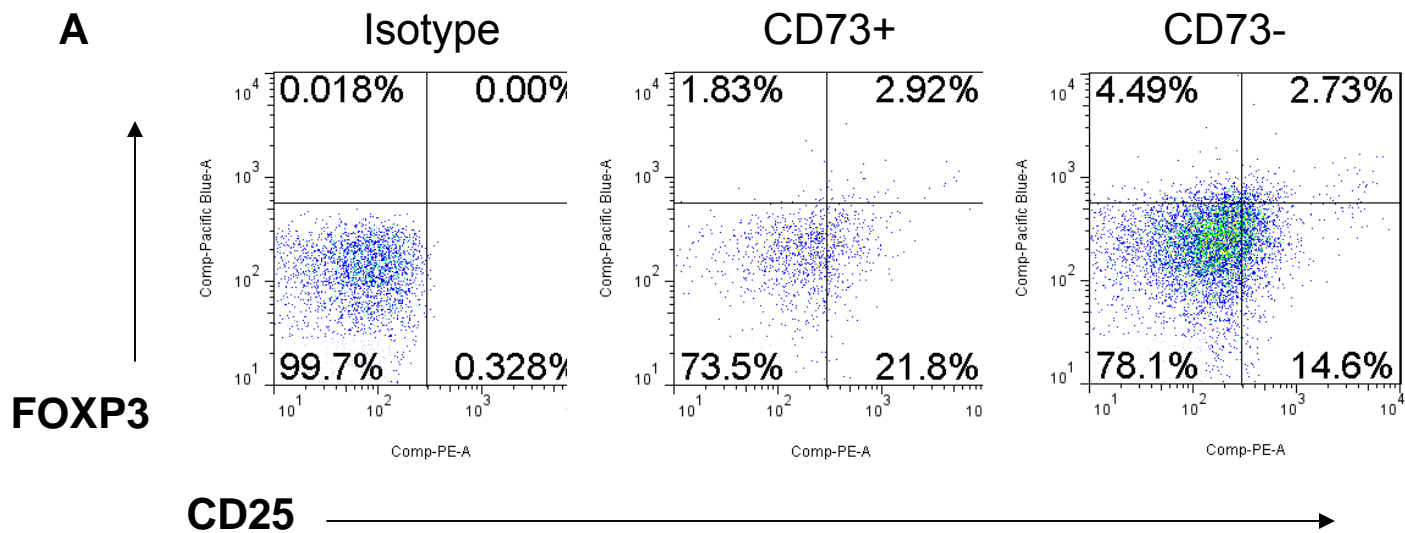
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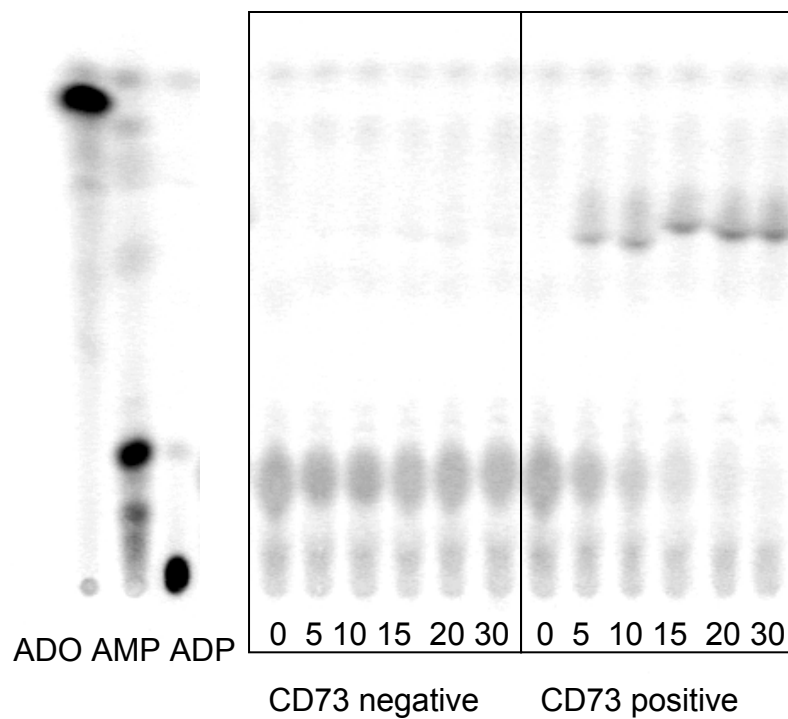
## B



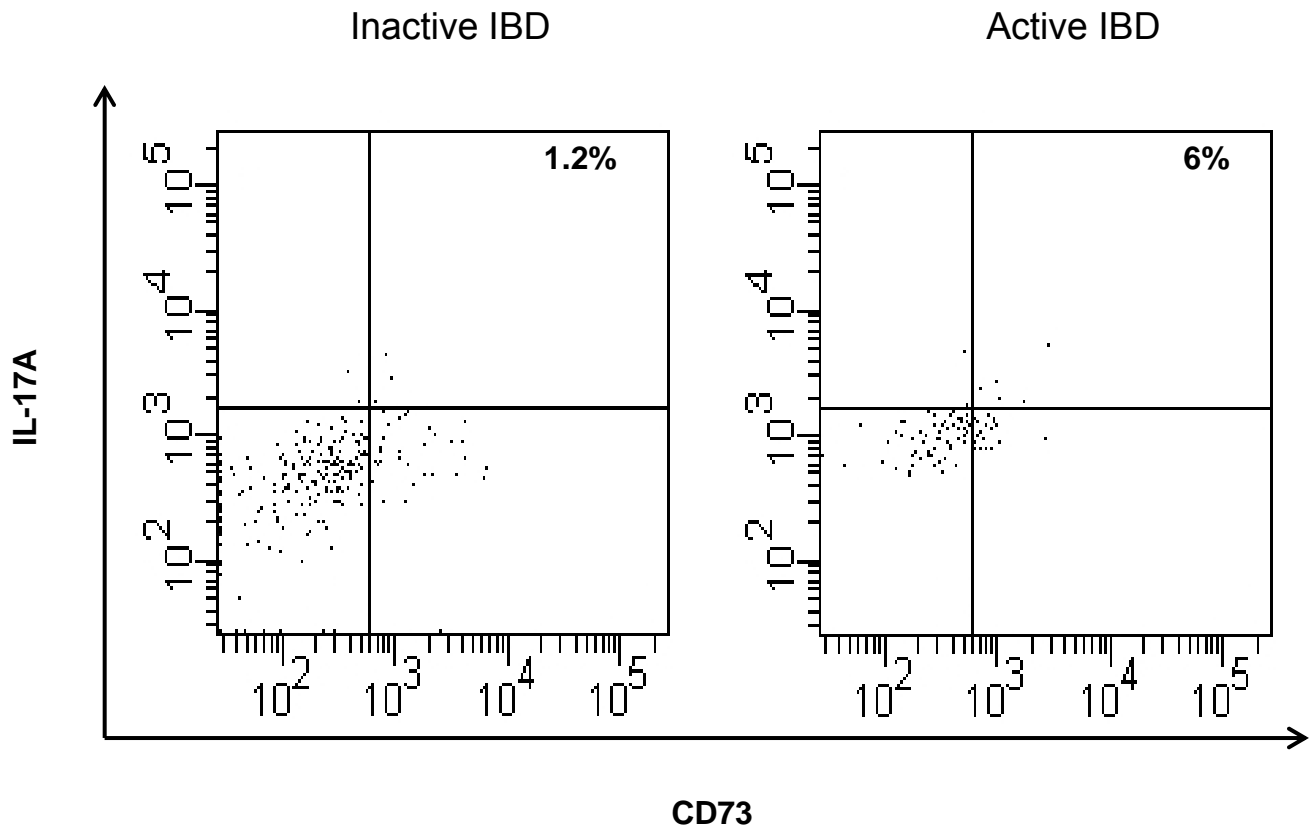
Supp\_Fig\_3



**B**



Supp\_Fig\_4



Supp\_Fig\_5

