



**Supplementary Fig. 1** Freshly isolated PBMC derived from 5 healthy blood donors were stained with a LIVE/DEAD™ Fixable Far Red Dead Cell Stain, fixed, permeabilized and stained with Brilliant Violet 421-conjugated anti-CD4 (clone OKT4) or anti-CD8 mab (clone RPA-T8) and FITC-conjugated anti-CD26/DPP4 mab (clone BA5b) or an appropriate isotype control. 10.000 cells were acquired with an ImageStream Mark II imaging cytometer. (A) The bright field gradient root mean square (RMS) feature was used to gate on cells that were in focus. (B) Bright field area versus aspect ratio features were plotted and used to gate on single cells. (C) Fluorescence intensity in channel 5 was used to exclude dead cells. (D) CD4<sup>+</sup> and (E) CD8<sup>high</sup> and CD8<sup>low</sup> cells were identified based on the intensity of the CD4/CD8 staining in channel 1 and their size as represented by the area in channel 6.