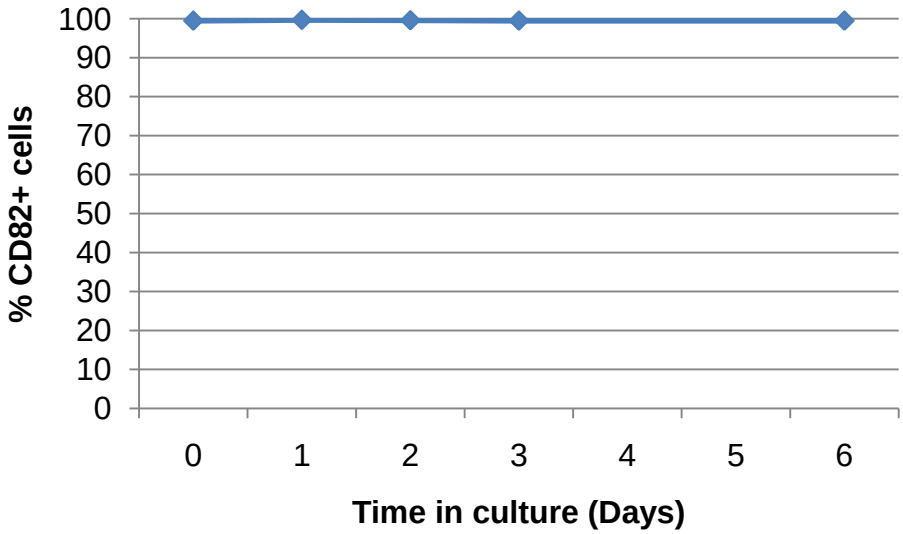
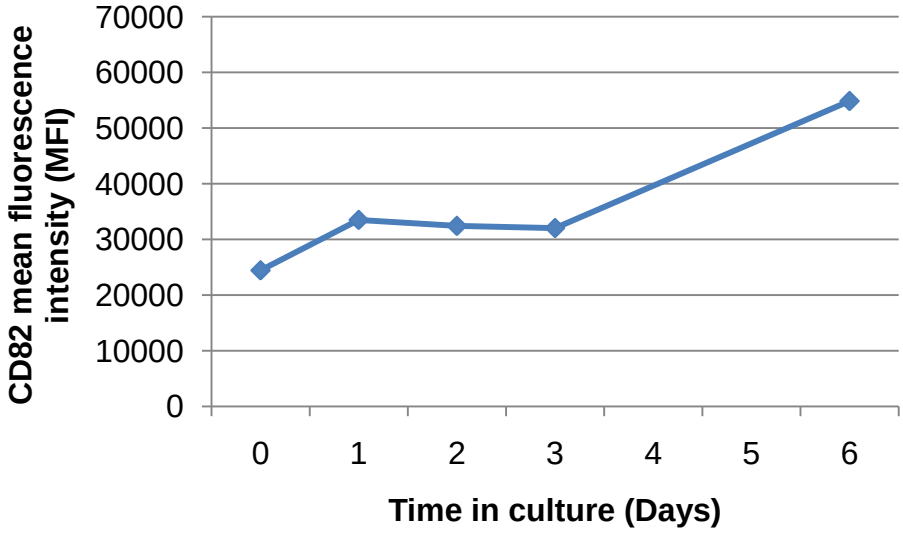
**a**

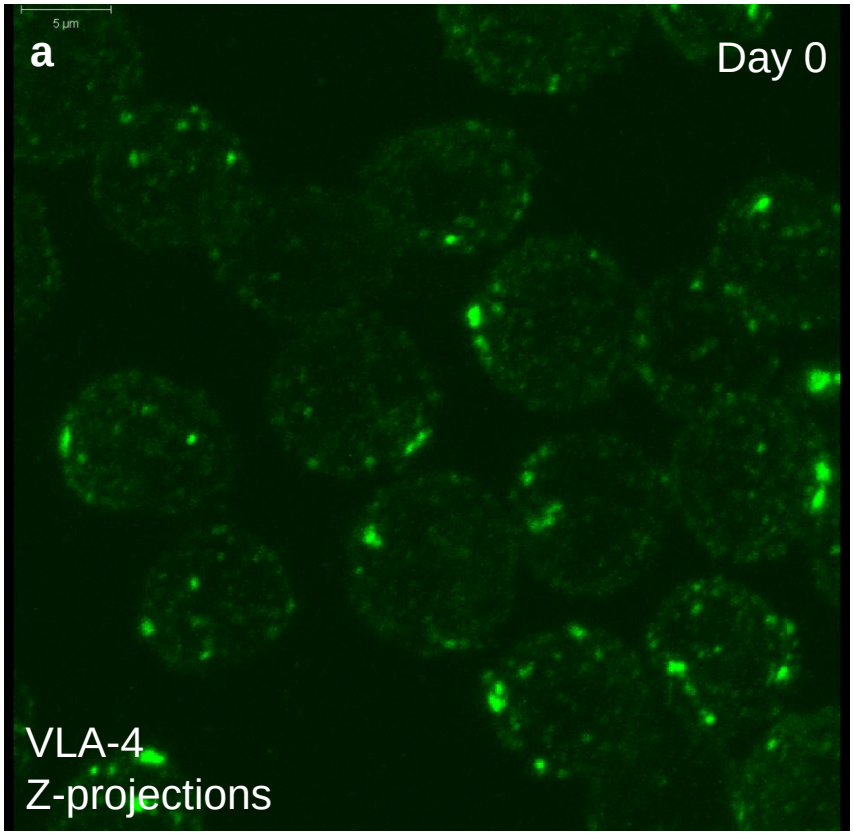


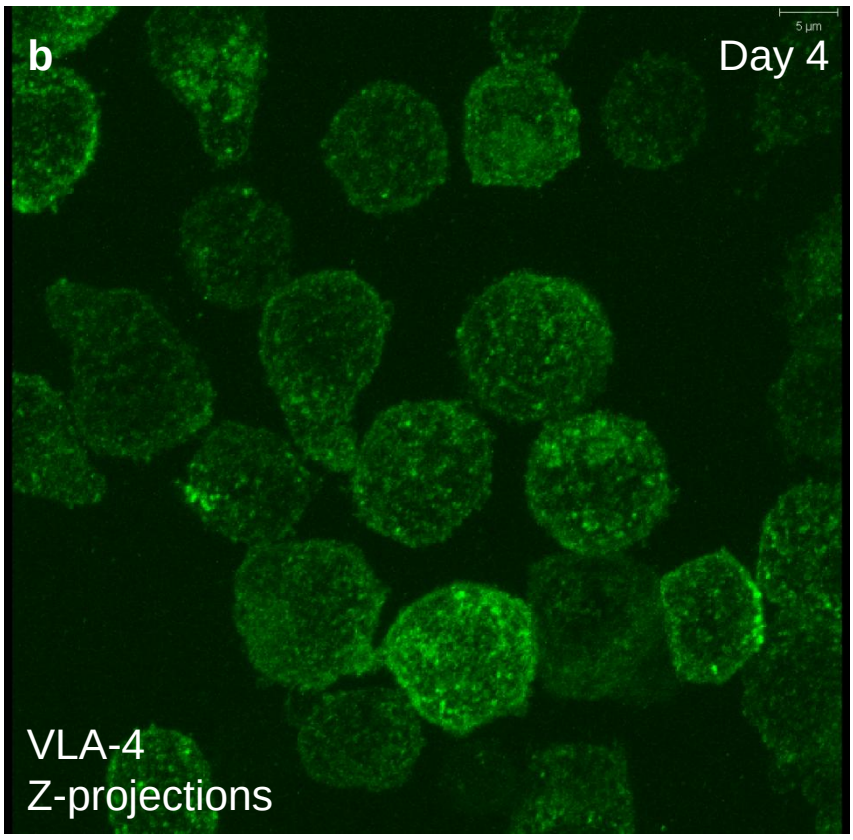

**b**




Larochelle et al. Supplemental Figure 1

**Supplemental Figure 1. Loss of CD82 polarity during culture of normal HSPC under stimulatory conditions is not accompanied by a decrease in CD82 expression.**
Percentage of cells expressing CD82 (A) and mean fluorescence intensity (MFI) of CD82 (B), as determined by flow cytometry analysis of normal human CD34+ cells at baseline and after up to 6 days in culture.

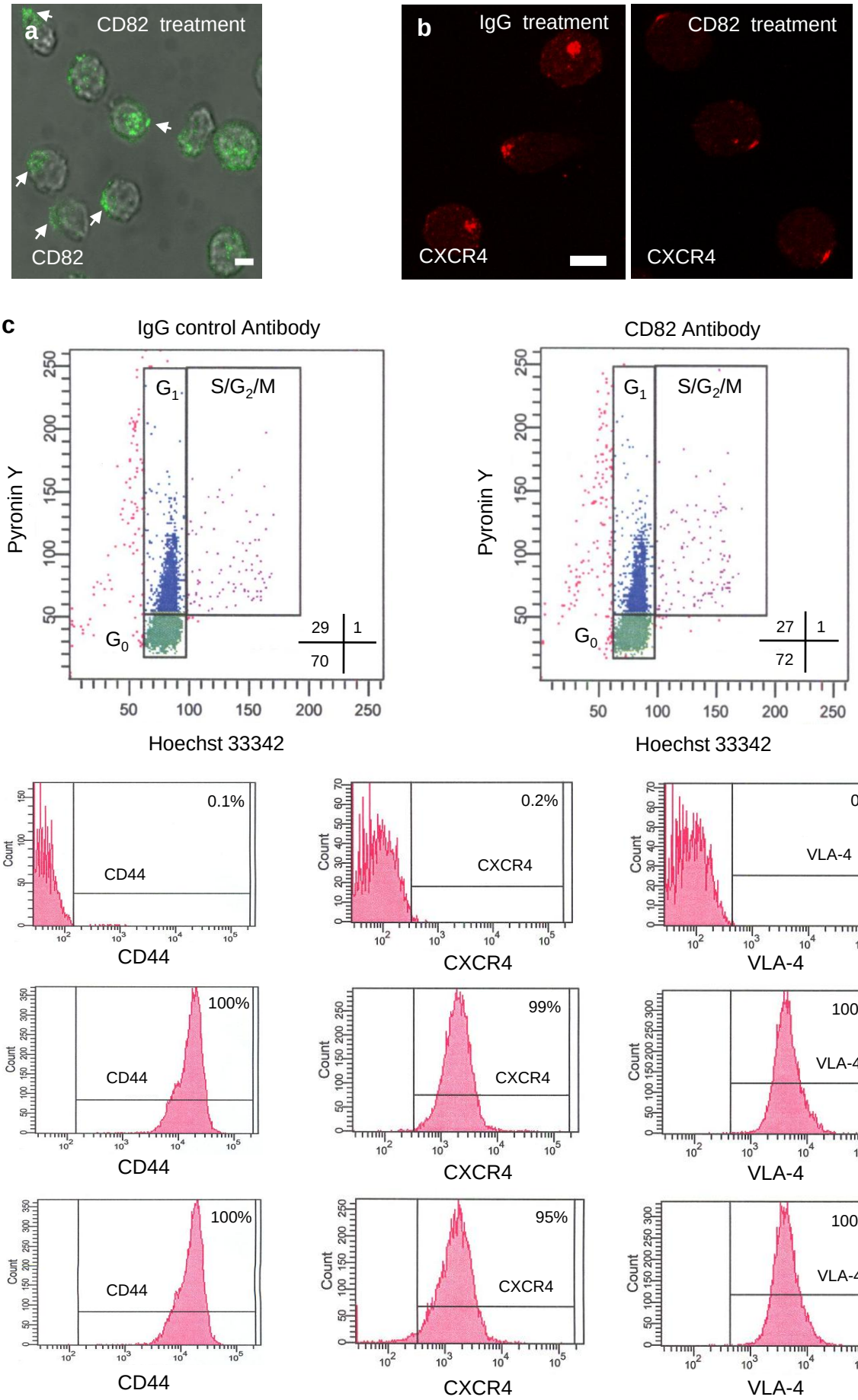



Larochelle et al. Supplemental Figure 2

**Supplemental Figure 2. Disruption of VLA-4 polarity after ex vivo culture of normal human HSPC in stimulatory cytokines.**

Immunofluorescence labeling of normal human CD34+ cells with antibodies for VLA-4 showed a polarized distribution of the membrane proteins on the majority of the cells at baseline (A), that was mostly redistributed throughout the plasma membrane after 4 days in culture under stimulatory conditions (B). These images are representative of the polarized molecule phenotypes observed in more than 100 CD34+ cells. Scale bars in A and B, 5μm.




Larochelle et al. Supplemental Figure 3

**Supplemental Figure 3. The decrease in homing and adhesion of normal human HSPC following treatment with CD82 antibodies is not due to CD82 antibody effects on membrane domain organization and polarity, or to changes in cell cycle status or in expression of other surface markers known to be important for HSPC homing.**
Immunofluorescence labeling of normal human CD34+ cells with antibodies for CD82 after treatment with anti-CD82. (B) Immunofluorescence labeling of normal human CD34+ cells with antibodies for CXCR4 after treatment with IgG isotype control (left) or CD82 (right) antibodies. (C) Cell cycle analysis of normal human CD34+ cells after treatment with IgG isotype control (left) or CD82 (right) antibodies. The insets indicate the percentage of cells in each phase of the cell cycle. (D) Flow cytometry analysis of CD44, CXCR4 and VLA-4 expression in human CD34+ cells after treatment with IgG isotype control or CD82 antibodies. Scale bars in A and B, 5μm.