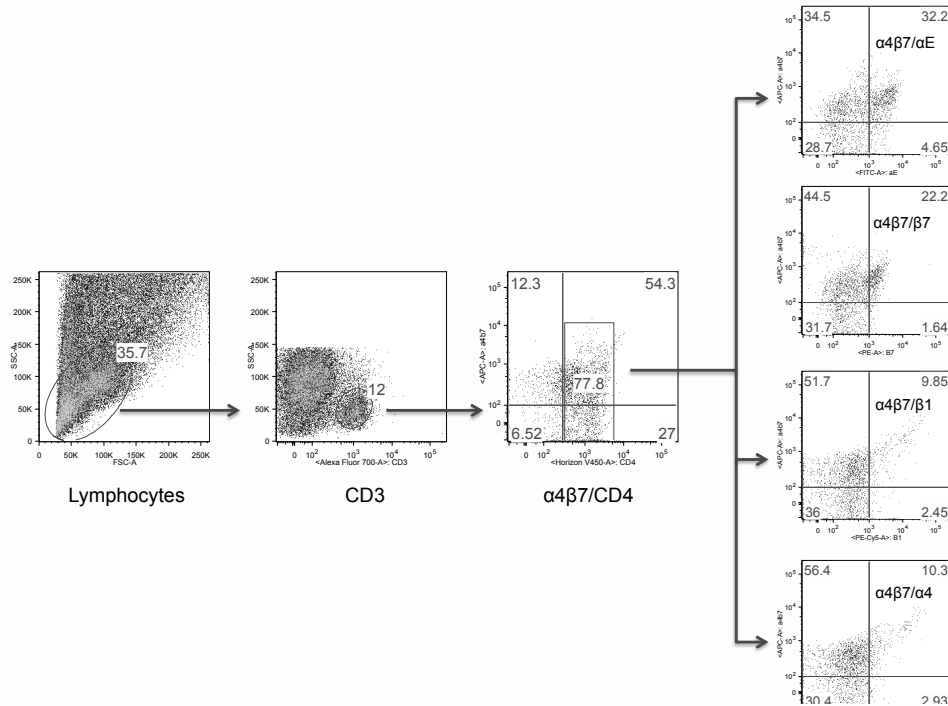
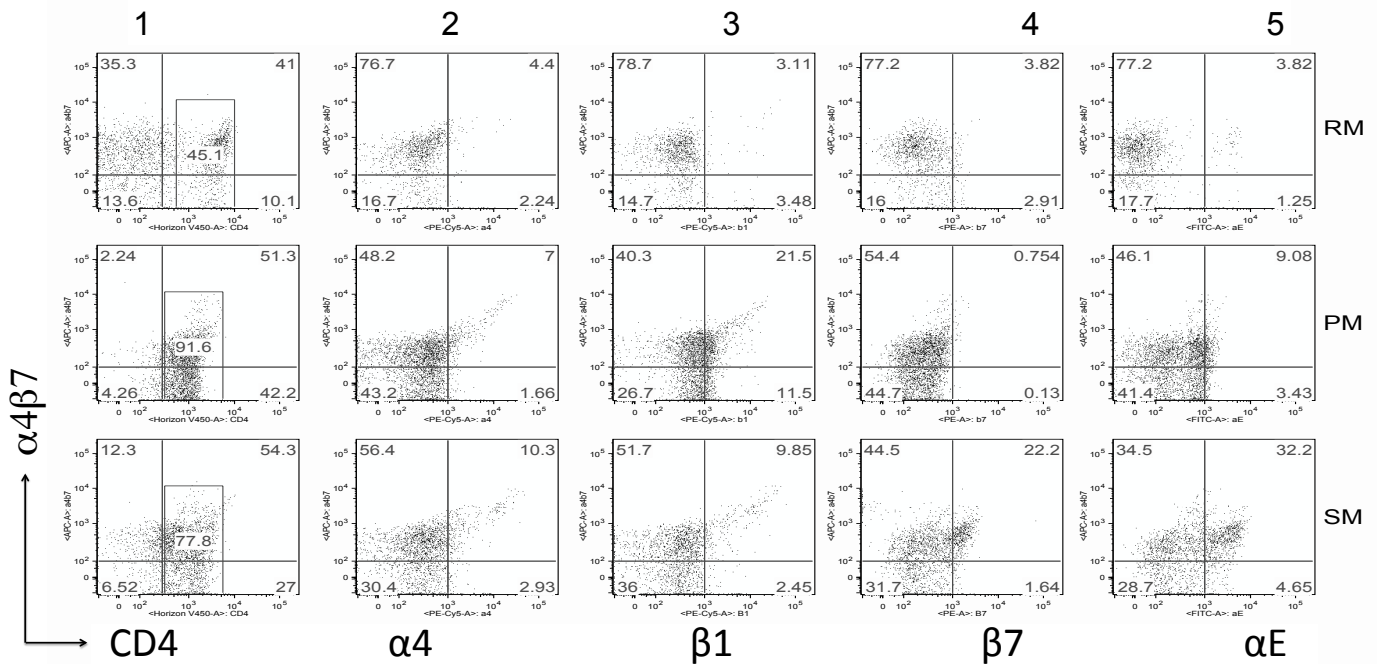


A

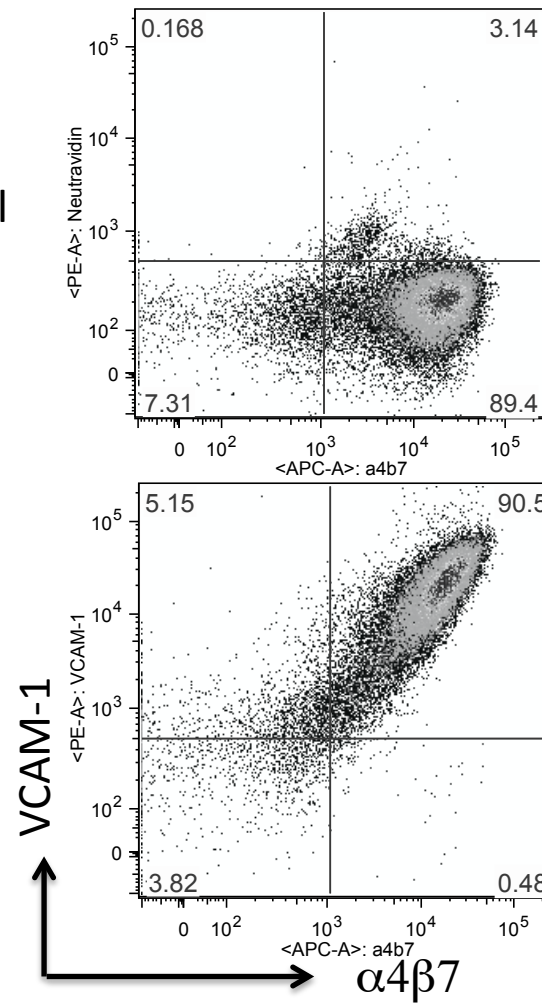


B



**Supplemental Figure 1.** (A) Representative profile of the gating strategies utilized to define the percentages of  $CD4^+$  T cells expressing  $\alpha 4\beta 7$ ,  $\alpha 4$ ,  $\beta 1$ ,  $\beta 7$ , and  $\alpha E$  in cells isolated from gut biopsies (B) Representative profiles of the flow cytometric analysis of the pairing of  $\alpha 4$ ,  $\beta 1$ ,  $\beta 7$ ,  $\alpha E$  with  $\alpha 4\beta 7$  integrins (columns 2-5, respectively) from RM (rhesus macaques, top row), PM (pigtailed macaques, middle row) and SM (sooty mangabeys, bottom row). Column 1 shows the profile of  $\alpha 4\beta 7$  expression by  $CD4^+$  T cells from cells isolated from gut tissues. Similar analysis were performed as described in Fig. 2C.

Negative Control



**Supplemental Figure 2.** Studies of the co-expression of  $\alpha 4\beta 1$  and  $\alpha 4\beta 7$  integrins on the gated population of CD3<sup>+</sup>, CD4<sup>+</sup> T cells from rhesus macaques. The top panel shows the staining of the APC-conjugated anti- $\alpha 4\beta 7$  mAb along with PE-avidin (background control). The bottom panel shows the profile of the co-staining of the CD3<sup>+</sup>, CD4<sup>+</sup> T cells using APC-conjugated anti- $\alpha 4\beta 7$  with biotinylated VCAM-1 followed by PE-avidin

**Supplemental Table 1.** GenBank accession numbers of retrieved  $\alpha 4$ ,  $\beta 7$ ,  $\alpha E$  and CCR5 promoter sequences used in the phylogenetic analyses of the study

<b>SPECIES</b>	$\alpha 4$	$\alpha E$	$\beta 7$	CCR5
<i>Homo sapiens</i>	NC_000002.11	NW_004929405.1	NC_000012.11	AF032132.1
<i>Gorilla gorilla</i>	NC_018426.1	NC_018441.1	NC_018436.1	AF252560.1
<i>Pan troglodytes</i>	NC_006470.3	NC_006484.3	NC_006479.3	AF252558.1
<i>Pan paniscus</i>	NW_003870546.1	NW_003870286.1	NW_003870627.1	DQ482439.1
<i>Pongo abelii</i>	NC_012593.1	NC_012608.1	NC_012603.1	NW_002913658.1
<i>Nomascus leucogenys</i>	NC_019837.1	-----	NC_019826.1	-----
<i>Macaca mulatta</i>	-----	AC191829.4 AC197790.3	NW_001096622.1	AC198716.8
<i>Macaca fascicularis</i>	-----	NC_022287.1	-----	AF252565.1
<i>Macaca nemestrina</i>	-----	-----	-----	AF252566.1
<i>Papio anubis</i>	NC_018163.1	NC_018167.1	NC_018162.1	AF252564.1
<i>Cercocebus atys</i>	-----	-----	-----	AF252572.1
<i>Chlorocebus sabaues</i>	-----	NC_023657.1	-----	AF252581.1
<i>Samiri boliviensis</i>	NW_003943608.1	NW_003943657.1	-----	NW_003943621.1
<i>Callithrix jacchus</i>	NC_013901.1	-----	NC_013904.1	AF252597.1