## <u>Supplementary Figure 1: Subcutaneously applied 13-cis RA does not enhance induction</u> of gut-homing receptors in skin-draining LN.

CFSE-labeled OT-I Ly5.1 cells were adoptively transferred into C57BL/6 mice on day 0. Two hours later, a single dose of Ova was injected s.c. A group of s.c. immunized mice additionally received s.c. injections of 150  $\mu$ g all-trans RA or 13-cis RA on day 0, 1 and 2. Graphs show the frequencies of  $\alpha$ 4 $\beta$ 7-integrin<sup>+</sup>, CCR9<sup>+</sup>, E- and P-selectin ligand<sup>+</sup> cells among transferred OT-I T cells from ingLN on day 3 (Mean + SD; data derived from 5 mice per group analyzed in 2 independent experiments).

## <u>Supplementary Figure 2: The effect of s.c. applied all-trans RA is strongest at, but not</u> restricted to the lymph node draining the site of RA injection.

<u>CFSE-labeled OT-I Ly5.1 cells were adoptively transferred into C57BL/6 mice on day 0.</u> <u>Two hours later, a group of OT-I recipients received Ova plus RA s.c. into the neck region</u> (Ova + RA). Another group of OT-I recipients was immunized with Ova into the footpad (Ova) and some of these mice in addition received RA s.c. into the neck region (Ova  $\leftrightarrow$  RA). <u>Graphs show the frequencies of  $\alpha4\beta7$ -integrin<sup>+</sup>, CCR9<sup>+</sup>, E- and P-selectin ligand<sup>+</sup> cells among transferred OT-I T cells on day 3 (Mean + SD; data derived from 6 mice per group analyzed in 2 independent experiments; Ova: popliteal LN; Ova + RA: axillary LN; Ova  $\leftrightarrow$  RA: popliteal LN).</u> Supplementary Figure 1



## Supplementary Figure 2

