

Figure S1 – Obesity does not affect cell counting on the peripheral lymphoid organs. Cell counting on the MLNs 48h after the last OVA challegenge (A) and 72 hours after the second sensitization (B). Cell counting on the spleen 48h after the last OVA challegenge (C) and 72 hours after the second sensitization (D). Values are expressed as mean  $\pm$  SEM. Different means are indicated as \*, for p<0,05. n=6 for each group.

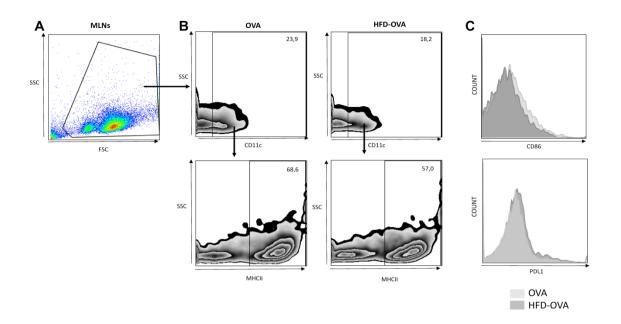
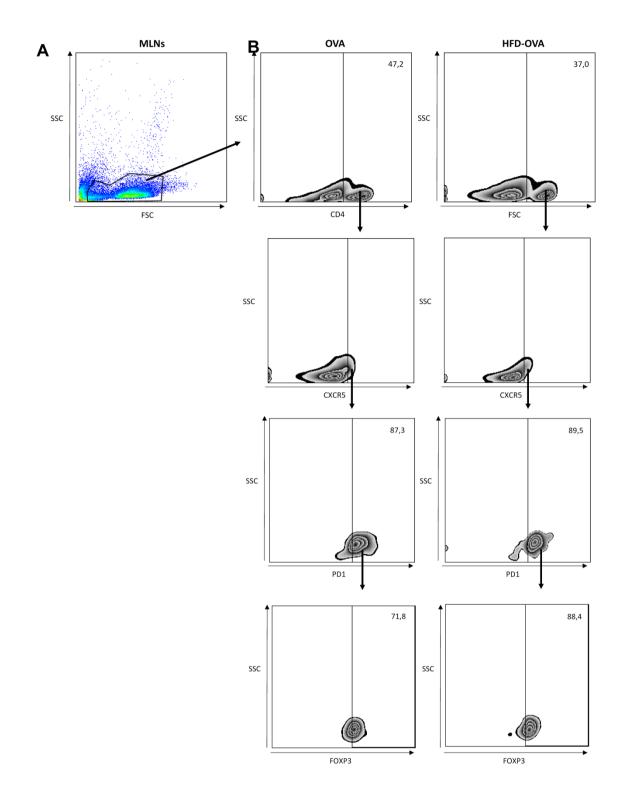


Figure S2 – Representative flow cytometry gating strategy for DCs phenotyping in MLNs. Population selection, SSC x FSC (A), CD11c<sup>+</sup>MHCII<sup>high</sup> gating (B), representative histogram for CD86 and PDL1 expression.



**Figure S3 – Representative flow cytometry gating strategy for Tfh phenotyping in MLNs.** Population selection, SSC x FSC (A), CD3<sup>+</sup>CD4<sup>+</sup>CXCR5<sup>+</sup>PD1<sup>+</sup> Foxp3<sup>+</sup> gating strategy (B).

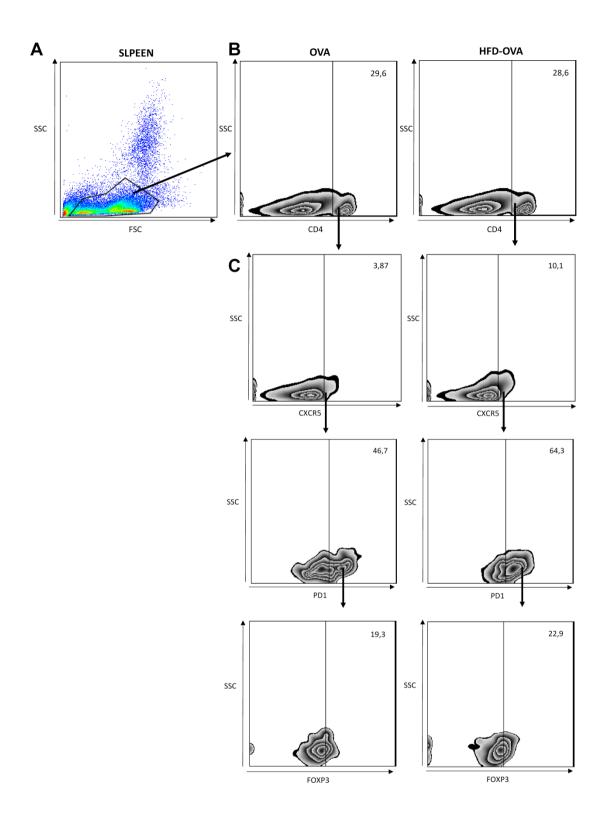


Figure S4 – Representative flow cytometry gating strategy for Tfh phenotyping in the spleen. Population selection, SSC x FSC (A), CD3<sup>+</sup>CD4<sup>+</sup>CXCR5<sup>+</sup>PD1<sup>+</sup> Foxp3<sup>+</sup> gating strategy (B).

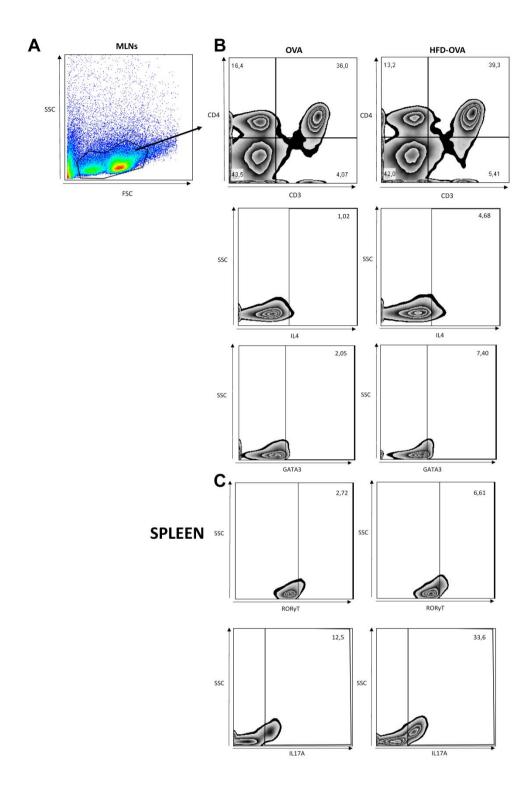


Figure S5 – Representative flow cytometry gating strategy for Th phenotyping in the MLNs and spleen. Population selection, SSC x FSC (A). Representative CD3 $^+$ CD4 $^+$ IL4 $^+$ /GATA3 $^+$  gating strategy in the MLNs (B). Representative CD3 $^+$ CD4 $^+$ IL17A $^+$ /ROR $^+$ T $^+$  gating strategy in the MLNs.