Supplementary Figure 1. Arg-1 and MgI1/2 expression in CD11c<sup>+</sup> and CD206<sup>+</sup> AT macrophages. Representative histograms of Arg-1 and MGL1/2 expression in AT macrophages positive for CD11c or CD206. Data represents one of 3 experiments.



Supplementary Figure 2. **RBP4 deletion results in reduced expression of MHCII and co**stimulatory molecules by AT macrophages. Gated CD11b<sup>+</sup>F4/80<sup>+</sup>CD11c<sup>+</sup> CD206<sup>-</sup> or CD11b<sup>+</sup>F4/80<sup>+</sup>CD11c<sup>-</sup>CD206<sup>+</sup> AT macrophages were evaluated for the expression of MHCII and co-stimulatory molecules (CD80, CD86 and CD40) by flow cytometry. (n=8 mice/group). Values are means  $\pm$  SEM. \*p<0.05 vs all other groups or as indicated. \*p<0.05 vs chow mice. MFI: median fluorescence intensity.



Supplementary Figure 3. **RBP4 deletion results in reduced phosphorylation of p38, JNK** and Erk in AT CD11c<sup>+</sup> cells. (A) AT stroma vascular fraction was isolated and stained with CD45, CD11b and CD11c. We used the same gating strategy (A) for RBP4-Ox for RBP4 KO and WT mice. The phosphorylation of p38, JNK and Erk was evaluated in gated CD45<sup>+</sup>CD11b<sup>+</sup> and CD45<sup>+</sup>CD11c<sup>+</sup> cells. (B) Normalized p-p38, p-JNK and p-Erk levels in AT C45<sup>+</sup>CD11c<sup>+</sup> cells from RBP4-Ox, RBP4 KO and WT mice (n=4 mice/group). Values are means ± SEM. <sup>\*</sup>p<0.05.



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Supplementary Figure 4. **Perigonadal (Pg) fat pad weight, adipocyte number and adipocyte size.** Pg fat pad weigh was determined in WT and RBP4-Ox male mice, 30 weeks old. Adipocyte were isolated and prepared and number and size were determined as described in Methods. n=4 mice/group. Pg: perigonadal fat.

