

## SUPPLEMENTARY MATERIALS

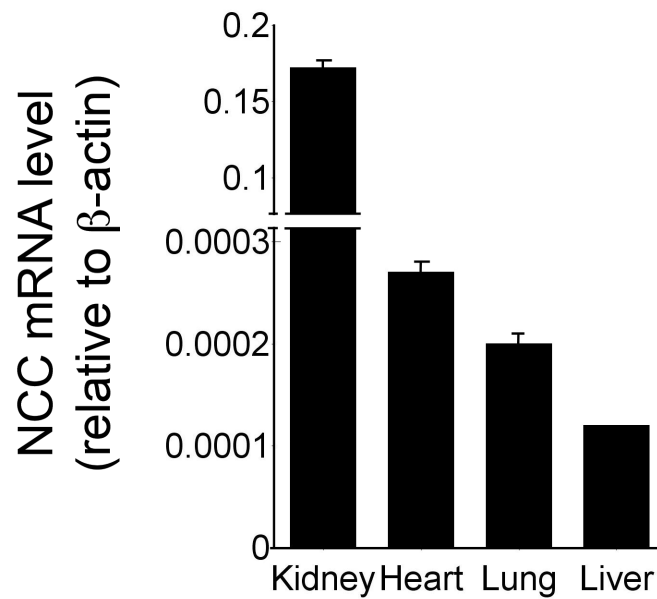
### Interleukin 18 function requires both interleukin 18 receptor and Na-Cl co-transporter

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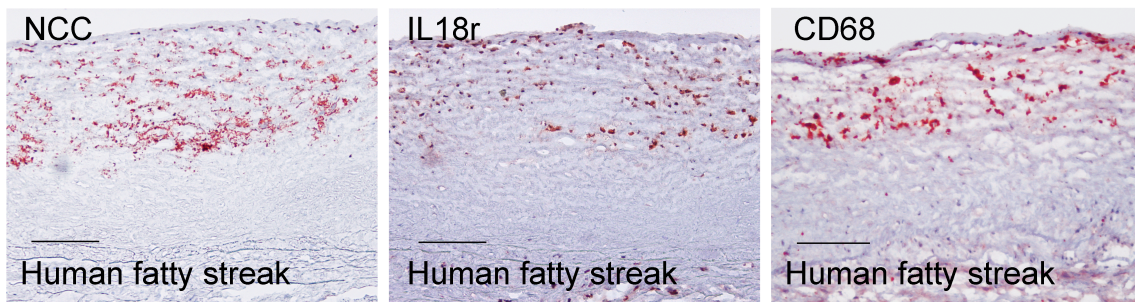
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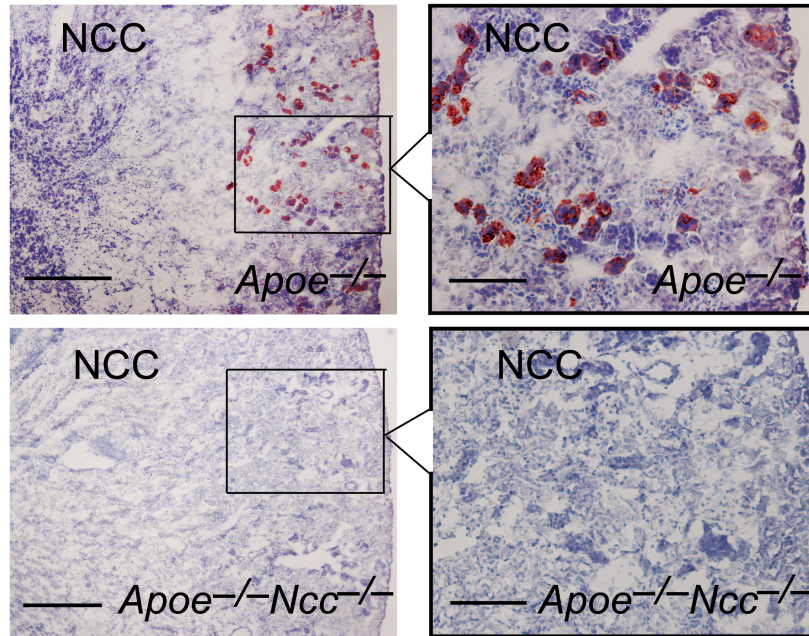
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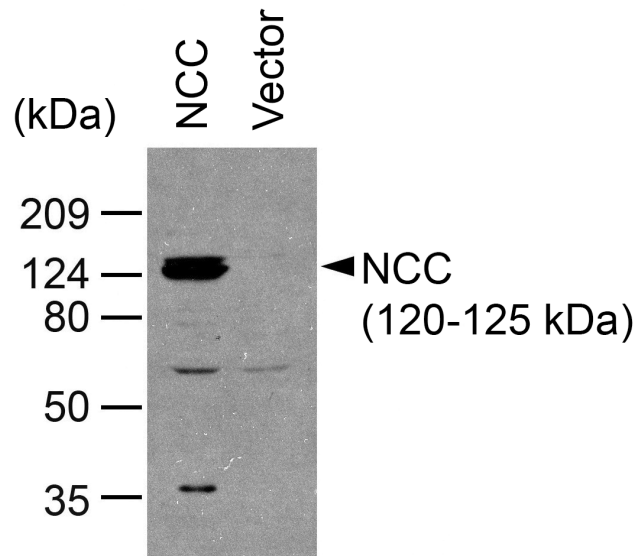
**Supplementary Figure 1.** RT-PCR to detect NCC mRNA levels in mouse kidney, heart, lung, and liver. Data are mean  $\pm$  SEM from three to six independent experiments.



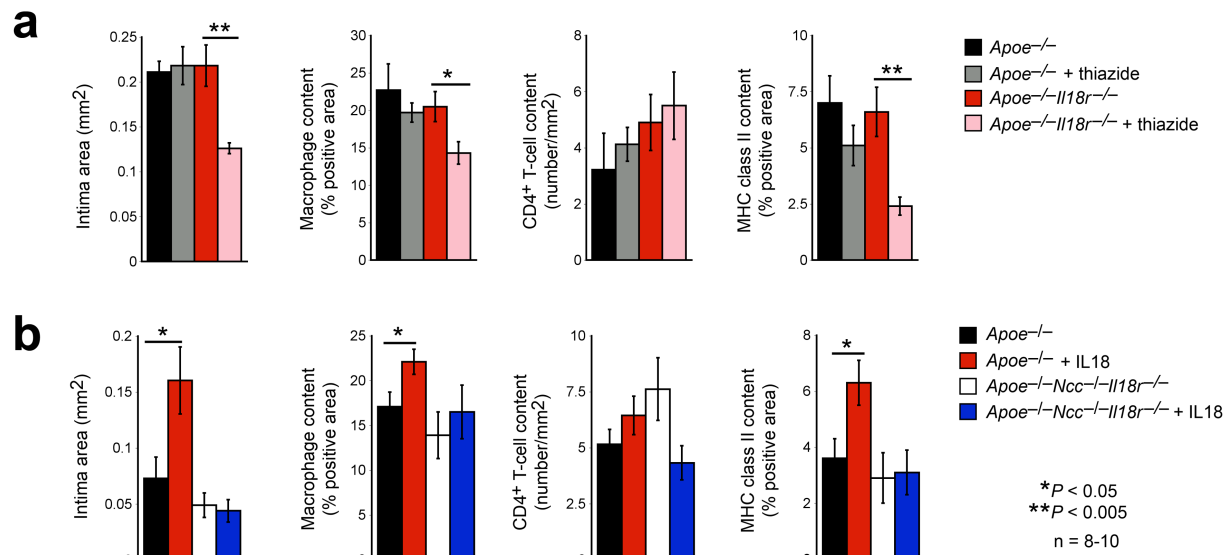
**Supplementary Figure 2.** Immunostaining of human carotid artery fatty streak frozen sections with antibodies against NCC (1:60, Millipore, Billerica, MA), IL18 receptor (1:100, R&D Systems, Minneapolis, MN), and CD68 (1:900, Dako, Carpinteria, CA). Bar: 200  $\mu$ m.



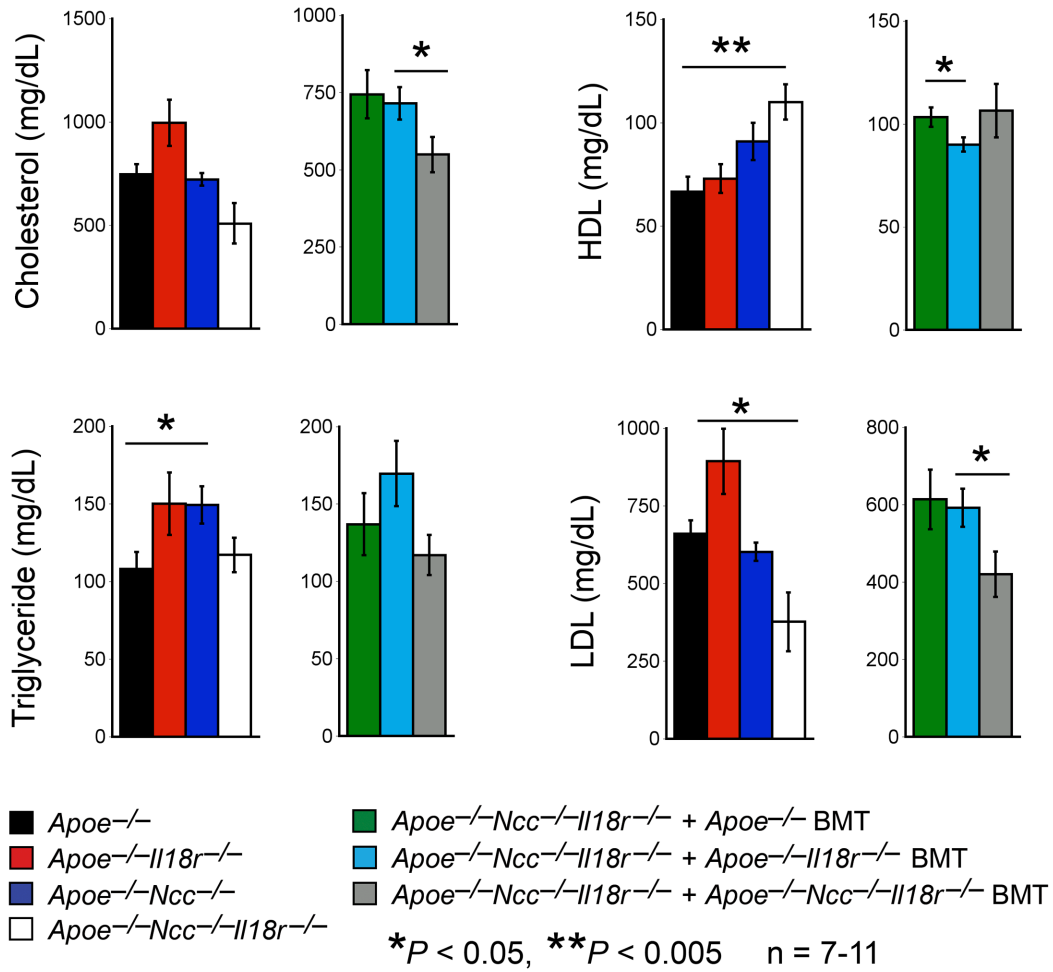
**Supplementary Figure 3.** Immunostaining of NCC on frozen kidney sections from *Apoe*<sup>-/-</sup> mice and *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup> mice with rabbit anti-NCC polyclonal antibody (1:60, Millipore, Billerica, MA). Anti-NCC antibody from our prior study (*J Am Soc Nephrol.* 1998;9:1347) yielded the exact same immunostaining pattern (data not shown). Bar: 500  $\mu$ m, Insert bar: 200  $\mu$ m.



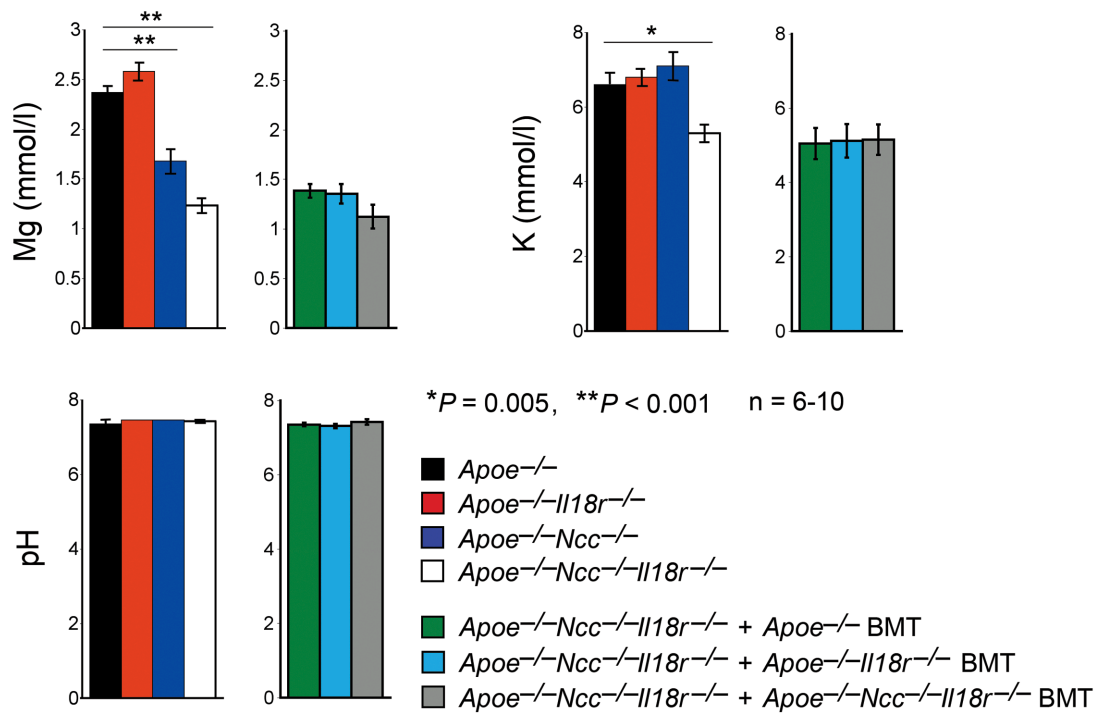
**Supplementary Figure 4.** Immunoblot analysis to detect NCC in NCC/pcDNA3.1- and pcDNA3.1-transfected COS-7 cells.



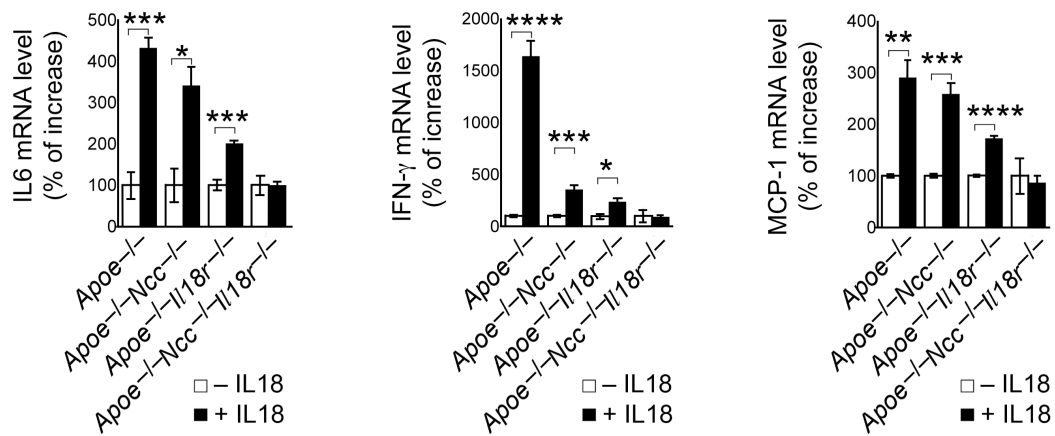
**Supplementary Figure 5.** Aortic root atherosclerotic lesion area, macrophage, CD4<sup>+</sup> T cell and MHC-II contents in mice treated with hydrochlorothiazide (3 months) (**a**) and mouse recombinant IL18 (4 weeks) (**b**) in different mice as indicated. Data are mean ± SEM, n=8-10 per experimental group.



**Supplementary Figure 6.** Plasma levels of total cholesterol, HDL, triglyceride, and LDL from *Apoe*<sup>-/-</sup>, *Apoe*<sup>-/-</sup>*IL18r*<sup>-/-</sup>, *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup>, *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup>*IL18r*<sup>-/-</sup> mice, and *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup>*IL18r*<sup>-/-</sup> mice received BMT. Data are mean ± SEM, *n*=7-11 per experimental group.

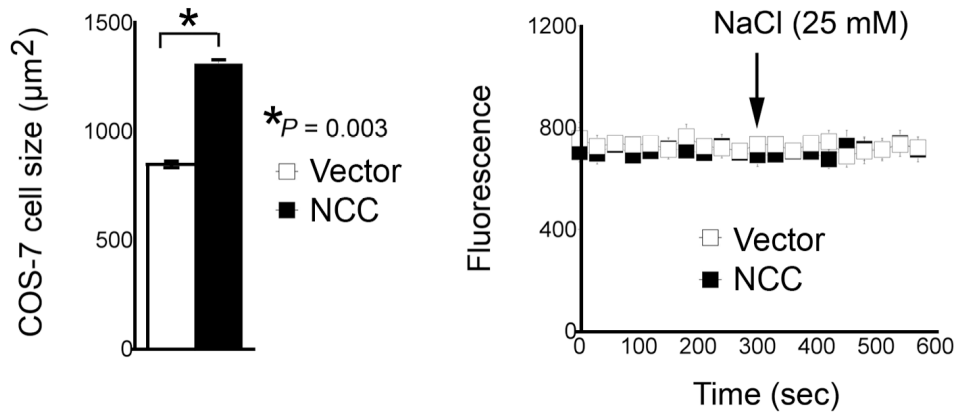


**Supplementary Figure 7.** Plasma levels of Mg<sup>2+</sup>, K<sup>+</sup>, and pH from *Apoe*<sup>-/-</sup>, *Apoe*<sup>-/-</sup>*Il18r*<sup>-/-</sup>, *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup>, *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup>*Il18r*<sup>-/-</sup> mice, and *Apoe*<sup>-/-</sup>*Ncc*<sup>-/-</sup>*Il18r*<sup>-/-</sup> mice received BMT. Data are mean ± SEM, n=6-10 per experimental group. Samples with gross hemolysis were excluded.

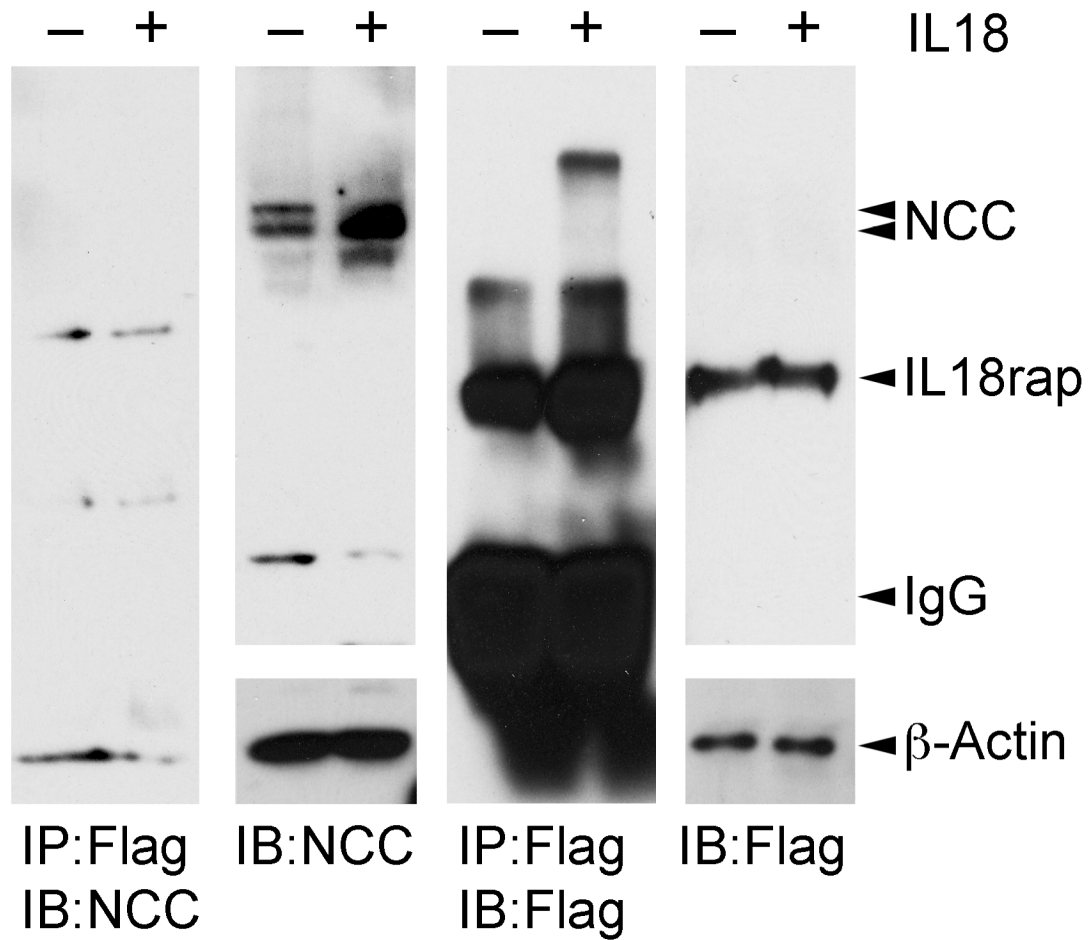


\* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.005$ , \*\*\*\* $P < 0.001$

**Supplementary Figure 8.** RT-PCR determined IL6, INF- $\gamma$ , and MCP-1 mRNA levels in IL18-treated and untreated macrophages from different mice, as indicated. Data are mean  $\pm$  SEM from three to six independent experiments.



**Supplementary Figure 9.** Cell volume and intracellular Cl<sup>-</sup> concentrations in COS-7 cells transfected with NCC/pcDNA3.1 or vector alone. Data are mean  $\pm$  SEM from three to six independent experiments.



**Supplementary Figure 10.** NCC and IL18rap expression and co-immunoprecipitation from COS-7 cells. COS-7 cells were transfected with both NCC/pcDNA3.1 and Flag-IL18rap/pcDNA3.1. After 48 hours, cells were treated with or without IL18 for 15 minutes and then lysed in RIPA buffer and immunoprecipitated with anti-Flag antibody, followed by immunoblot analysis with either rabbit anti-mouse NCC polyclonal antibody (panel 1) or anti-Flag antibody (panel 3). The same cell lysates were used for immunoblot analysis to detect NCC (panel 2) and Flag-IL18rap (panel 4) expressions. Actin blots in panels 2 and 4 were used to ensure equal protein loading. IP: immunoprecipitation; IB: immunoblot.