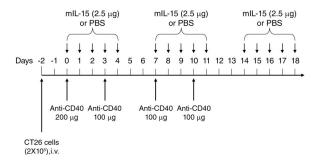
## **Supporting Information**

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## Protocol of therapeutic study in CD26 model



**Fig. S1.** Treatment schema of the therapeutic study in the CT26 model. Female BALB/c mice were injected with the CT26 cells i.v. and the thearpy started 2 days later. Groups of 10 mice each received mIL-15 i.p., 2.5 μg per mouse, 5 days a week for 3 weeks; the anti-CD40 antibody, 200 μg on day 0, then 100 μg on days 3, 7, and 10; or a combination of mIL-15 with the anti-CD40 antibody at the same doses and dosing schedule as those in mIL-15 and the anti-CD40 antibody groups. An additional group of mice that received PBS solution injections served as a control. The survival of the mice was monitored throughout the experiments.

## Protocol of in vitro lysis array

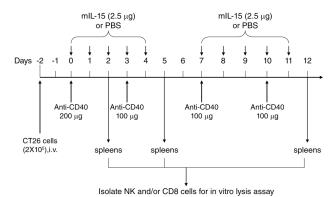


Fig. S2. Treatment schema for the in vitro lysis assay. Female BALB/c mice were injected with the CT26 cells i.v. Two days later, groups of the tumor-bearing mice received mIL-15 or the anti-CD40 antibody alone or their combination. An additional group of the mice was given PBS solution as a control. The mice were killed and the spleens were taken at days 2, 5, or 12 after therapy. NK and CD8<sup>+</sup> T cells were isolated from the spleens.

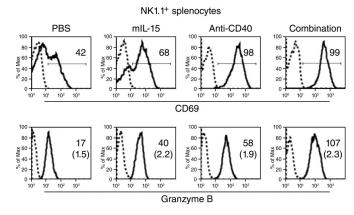


Fig. S3. Activation of NK cells was induced by treatments with mlL-15, the anti-CD40 antibody, and their combination. Surface expression of CD69 (Upper) and intracellular expression of granzyme B (Lower) on the NK1.1+ population of splenocytes were analyzed by flow cytometry. C57BL/6 mice were treated with mlL-15 ( $2.5 \mu g$ ), the anti-CD40 antibody ( $200 \mu g$ ), or their combination, or with PBS solution as a control. The splenocytes were separated 24 h later for flow cytometric analysis. Treatment with mlL-15, anti-CD40 antibody, or their combination up-regulated the expression of CD69 (Upper) on NK1.1+ splenocytes compared with the PBS solution control group. Treatment with the combination regimen induced the highest level of intracellular granzyme B in the NK1.1+ cells compared with those from either mlL-15-treated or anti-CD40 antibody-treated mice (Lower). Dashed lines represent isotype controls. Numbers refer to percentages (Upper) and mean fluorescence intensity measurements (Lower). Numbers in parentheses (Lower) represent isotype controls. The data are representative of 3 separate experiments.