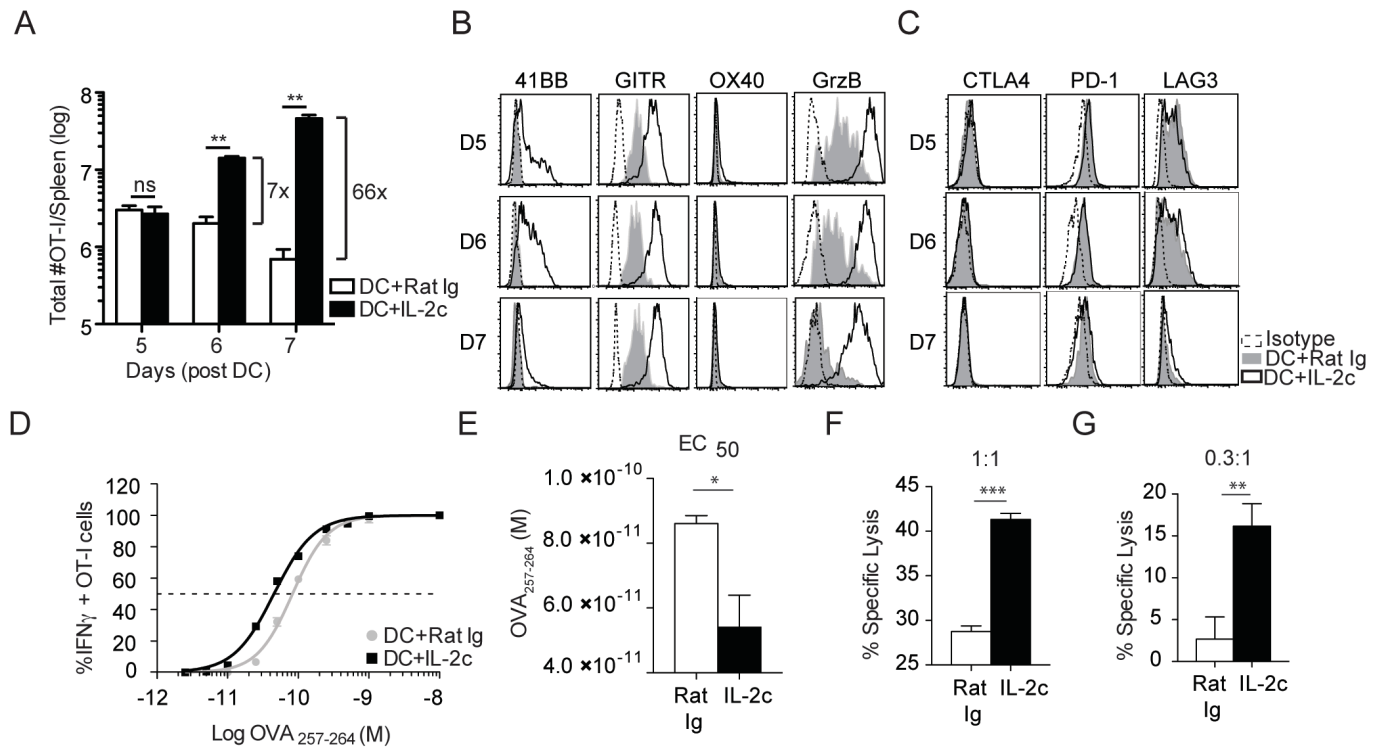**Figure S1:**

Fig. S1. DC+IL-2c enhances Ag sensitivity and per-cell killing on OT-I cells. 3×10^4 OT-I cells were adoptively transferred into naïve B6 mice and subsequently immunized with DC-OVA±IL-2c. Spleens were harvested from D5-7 to quantify number and surface phenotype. (**A**) Summary graph (mean ± SEM) of total number of OT-I CD8 T cells from D5-7. (**B**) Histogram plots of costimulatory molecule and granzyme B expression in OT-I CD8 T cells from D5-7. (**C**) Histogram plots of inhibitory molecule expression on OT-I CD8 T cells from D5-7. (**D**) Functional avidity curves of DC±IL-2c at D6 post-DC immunization. (**E**) EC_{50} from (D). (**F**) *In vitro* cytotoxicity assay at E:T ratio of 1:1. (**G**) Same as (F), but at E:T of 0.3:1. Data are representative of 2 independent experiments with at least 3 mice/group.**=p<0.005.
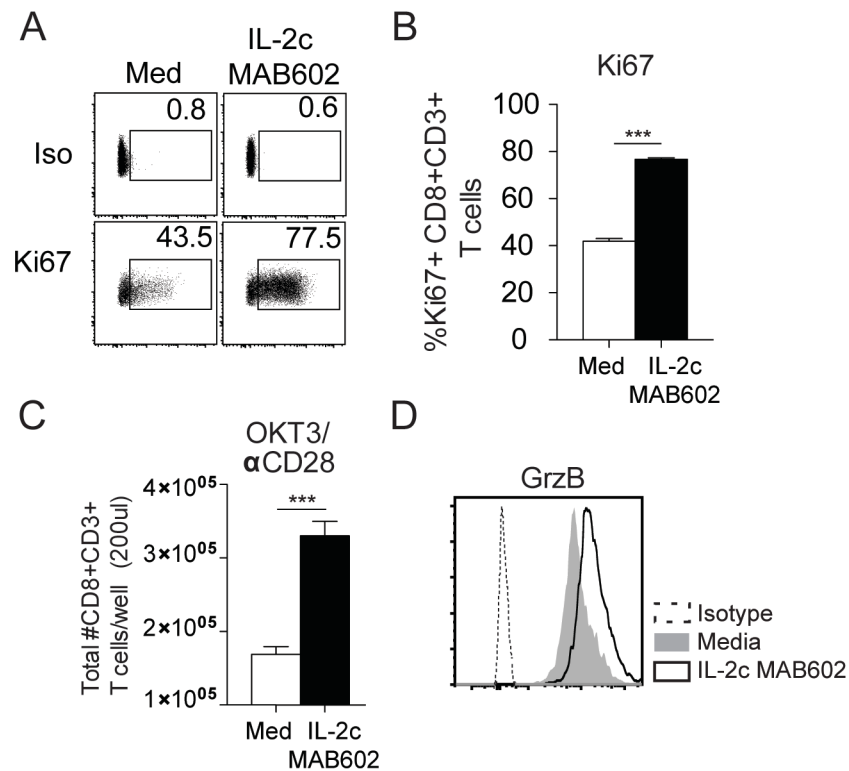
Figure S2:

Fig. S2. Enhanced activation of human CD8 T cells after huIL-2c MAB602 treatment. CD8 T cells were isolated from LRS cones via negative magnetic bead selection and plated at 2.5×10^5 cells/well. (**A**) Raw flow plots of Ki67+ cells from media or IL-2c MAB602-treated cells. (**B**) Summary bar graphs (mean ± SEM) of %total Ki67+CD8+CD3+ cells per well. (**C**) Total number of CD8+CD3+ huT cells per well on D7 after OKT3/αCD28 activation. (**D**) Representative histogram of granzyme B expression from media and huIL-2c MAB602-treated CD8+CD3+ cells. Data are representative of 3 independent experiments with at least 2 human blood samples/group. *** = p<0.0005
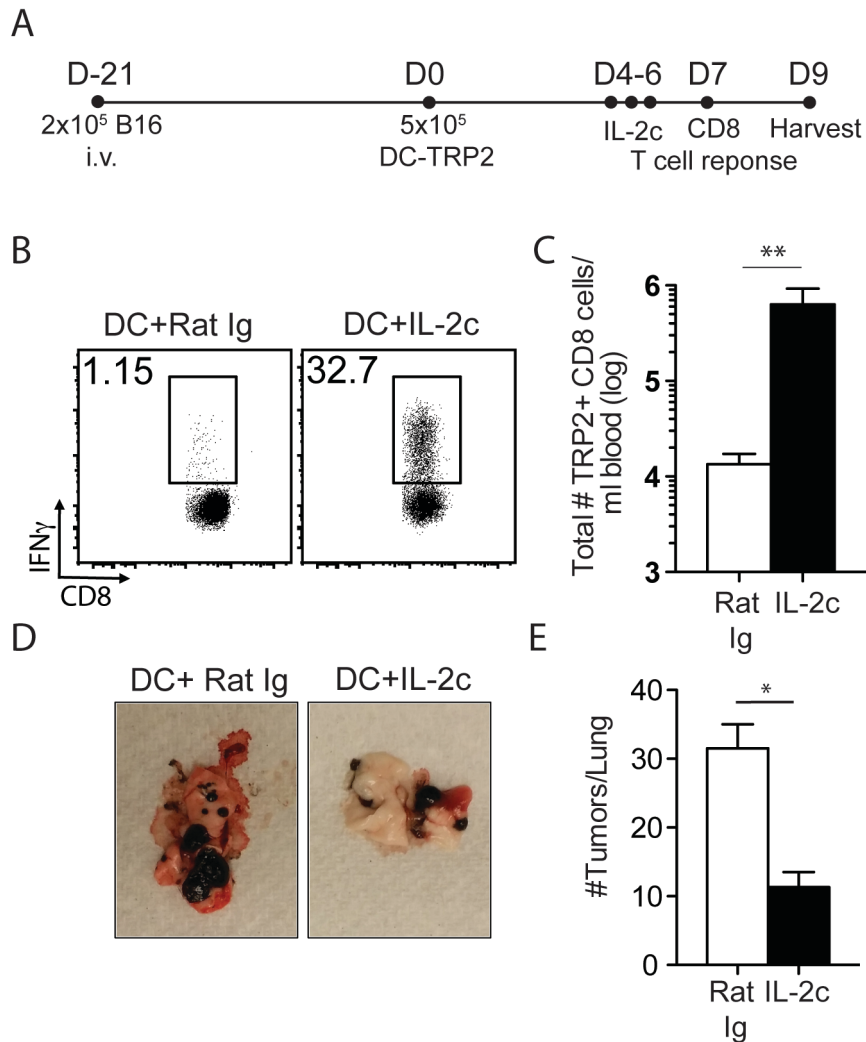
Figure S3:

Fig. S3. Late intervention with DC+IL-2c induces robust CD8 T cell response and tumor regression. Naïve B6 mice were inoculated with $2x10^5$ B16 tumors i.v. and treated with DC+Rat Ig or DC+IL-2c on D21 post-inoculation. (**A**) Experimental approach. (**B**) Endogenous TRP2-specific CD8 T cells were quantified per ml of blood at D7 post-DC via ICS. (**C**) Summary bar graph (mean ± SEM). (**D**) Representative images of perfused lungs at D30 post-transfer of B16 melanoma cells. (**E**) Summary bar graphs (mean ± SEM) of total number of tumors per lung for all treatment groups. Data are representative of 2 independent experiments with at least four mice per treatment group. *** = p<0.0005; n.d., no data.
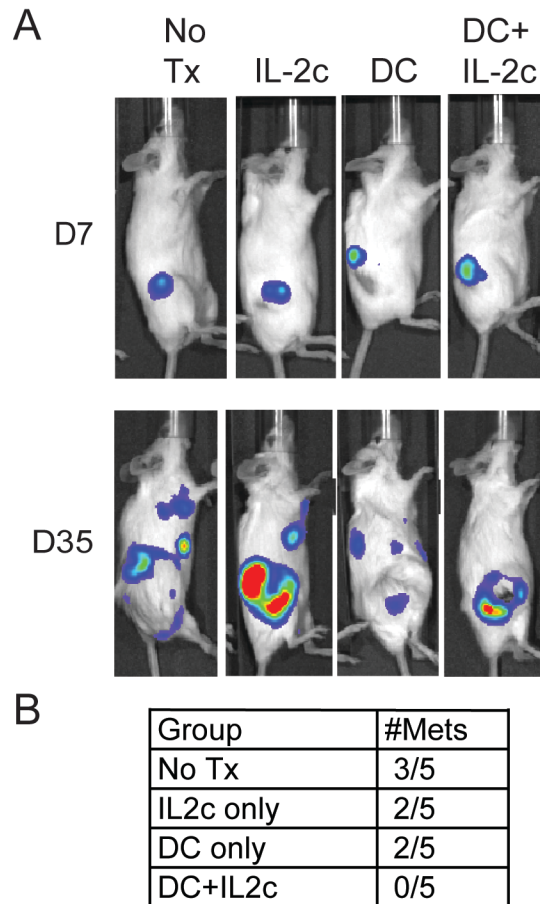
Figure S4:

A

| | No Tx | IL-2c | DC | DC+ IL-2c |

D7

D35

B

Group	#Mets
No Tx	3/5
IL2c only	2/5
DC only	2/5
DC+IL2c	0/5

Fig. S4. IL-2c alone does not prevent metastases in 4T1 tumor model. Naïve BALB/c mice were inoculated with 1×10^5 4T1-fLUC tumors orthotopically in mammary pad #9 and treated with PBS, IL-2c only, DC+Rat Ig or DC+IL-2c on D7 post-inoculation. (**A**) Whole-mouse images of all experimental groups at D7 and D35. (**B**) Summary table of metastases in each treatment group. Data include n=5 mice per group.