

Supplementary Figure 1

Suppl. Fig. 1: Body weight monitoring as sign of treatment tolerability. K1735M2 melanoma-bearing mice were treated with low $(30\mu g/mouse, a and b)$ or high dose $(50\mu g/mouse, c and d)$ F8-IL2 in combination with Dacarbazine (a and c) or Paclitaxel (b and d) chemotherapy. Body weight is reported as percentage of the initial body weight. Results are plotted as average \pm SE, $\downarrow =$ F8-IL2 treatment, $\downarrow =$ DTIC or PTX treatment, N=4-5.

Supplementary Figure 2



Suppl. Fig. 2: Analysis of the tumor host-cell infiltrate. 10μ m cryostat sections of OCT embedded K1735M2 tumors were stained with the single antibodies and the percentage of stained area evaluated with the aid of ImageJ software. Results are plotted as single values + mean. ** = P<0.01 (one-way ANOVA test followed by Dunn's post-test). N=5-7 images per group.



Suppl. Fig. 3: Therapy efficacy in combination with anti-inflammatory drugs. K1735M2 melanoma-bearing mice were treated with F8-IL2 ($50\mu g/mouse$) and dacarbazine (200mg/kg). Antipyretics were administered 1h before the immunocytokine dose. Results are reported as tumor mean weight over time \pm SE (**a**) or as tumor median (**b**). **c** Weight monitoring depicted as percentage of the initial body weight; results are plotted as percentage over time \pm SE. **d** Schematic representation of the treatment schedule.



Suppl. Fig. 4: Body weight monitoring as sign of treatment tolerability. Mice bearing K1735M2 melanoma (a and b) or Wehi-164 sarcoma tumors (c and d) were treated with recombinant human IL2 (10µg/mouse), murine recombinant TNF α (2,5µg/mouse) or a combination of the two (a and c). Further therapy groups were treated with the corresponding immunocytokines F8-IL2 (30µg/mouse), F8-mTNF (7µg/mouse) or a combination of the two (b and d). Body weight is reported as percentage of the initial body weight. Results are plotted as average ± SE, N=4-5.

Supplementary Figure 5



Suppl. Fig. 5: Tumor gross appearance of treated mice. Mice bearing K1735M2 melanoma (**a**) or Wehi-164 sarcoma tumors (**b**) treated with the different therapeutic proteins were imaged with a portable camera at different time points after treatment. The progression of the same tumor over time is shown.