



**Supplementary Fig. 10. Rationale for combination of feladilimab with anti-PD-1 blockade.** (a) RNA-based expression of PD-1 (*PDCDI*) and PD-L1 (*CD274*) on TILs isolated from anti-ICOS mAb (7E.17G9 rIgG2b)-treated EMT6 tumor-bearing mice on study day 7 (48 hours post final dose). (b) As in (a), *ICOS* expression following treatment with anti-PD-1 mAb (RMP1-14 rIgG2a). (c) IFN $\gamma$  levels in the serum of EMT6 tumor-bearing

mice 48 hours post second (study day 5) and third doses (study day 7) of indicated mono- or combination therapies (7E.17G9 mIgG1 and RMP1-14 rIgG2a). **(d)** % Ki67+ CD8+ T cells, granzyme B (GrzB)+ CD8+ T cells, Ki67+ CD4+ T cells, and T-bet+ CD4+ T cells in the tumor-draining lymph nodes of EMT6 tumor-bearing mice 48 hours post third dose (study day 7) of indicated mono- or combination therapies (7E.17G9 mIgG1 and RMP1-14 rIgG2a) assessed using flow cytometry (nonspecific binding was blocked with human or mouse Fc block). **(e)** Quantification of the co-expression of CD3+ PD-1+ ICOS+ cells in both normal tissue and tumor biopsies obtained from different tumor types by high-order multiplex immunofluorescence (MultiOmyx platform, NeoGenomics). **(f)** Flow cytometry analysis of % PD-1+ T cell populations with and without plate-bound anti-CD3 antibody (0.6  $\mu\text{g/ml}$ ) and feladilimab (10  $\mu\text{g/ml}$ ) treatment for 72 hours (nonspecific binding was blocked with human or mouse Fc block); see **Supplementary Fig. 1** for gating strategy. **(g)** IFN $\gamma$  production in a modified allogeneic MLR following exposure to feladilimab (11.1  $\mu\text{g/ml}$ ) and anti-PD-1 (pembrolizumab, 11.1  $\mu\text{g/ml}$ ) alone or in combination for 96 hours. 2X control represents the combination of two hIgG4-PE isotype controls. Error bars in **(a–d, g)** represent mean  $\pm$  s.e.m. Significance was determined by unpaired *t*-test (two-tailed) in **(a, b)** and one-way ANOVA in **(c, d, g)**.