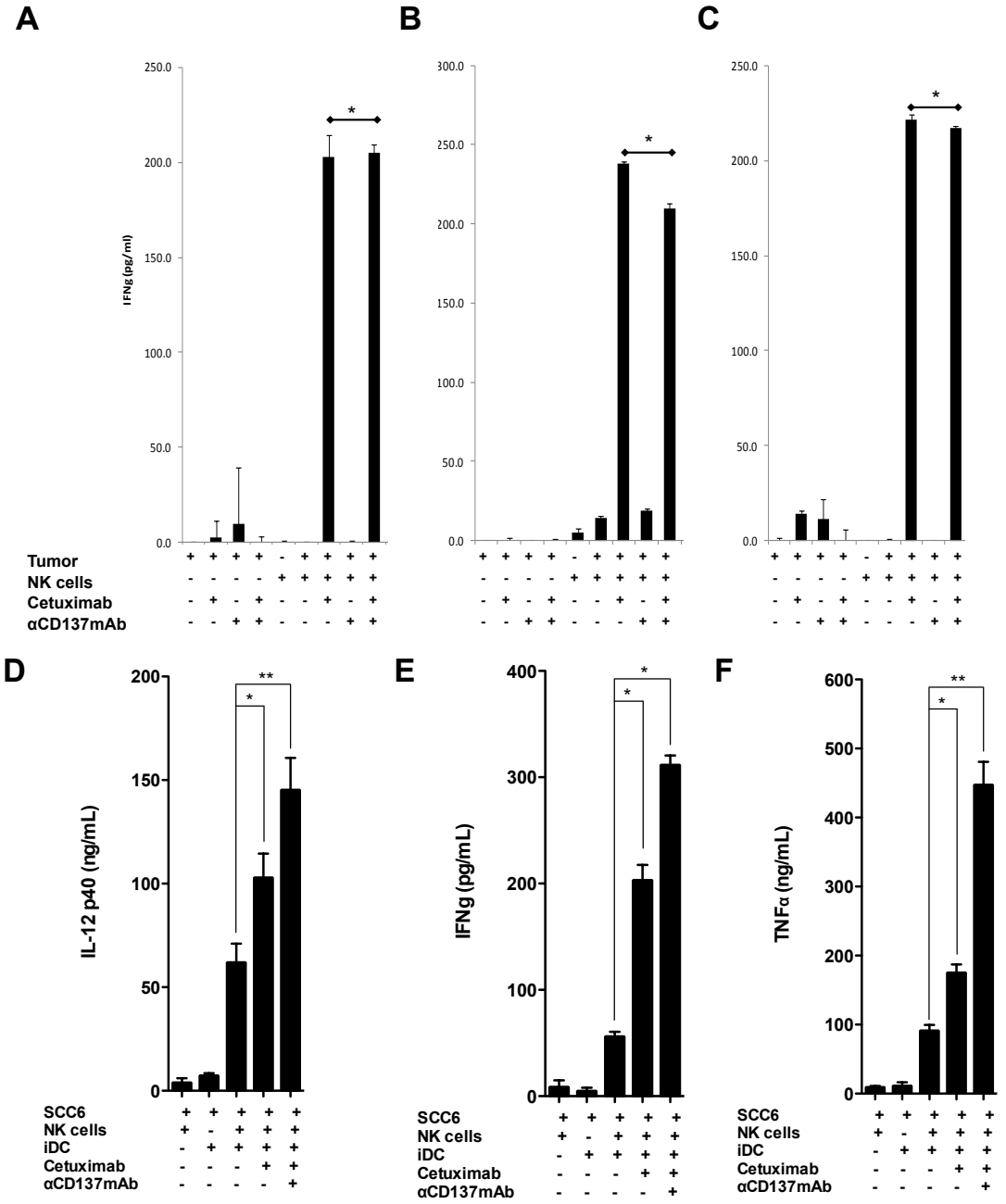

Supplementary Figure 1

Anti-CD137 agonistic mAb does not increase cetuximab-mediated NK cell secretion of IFN-γ, however in the presence of activated NK cells, EGFR-expressing cancer cells, cetuximab, and immature dendritic cells (iDCs) anti-CD137 agonistic mAb enhances secretion IL-12, IFN-γ, and TNF-α. To evaluate NK cell function, purified NK cells were isolated from three independent, healthy donor PBMCs and cultured for 24 hours together with cetuximab (10 μg/mL) and irradiated (5,000 rads) EGFR-expressing cancer cells (PC1) at a ratio of 1:1. After 24 hours, NK cells were isolated by negative selection and assessed for purity (>90% purity as defined by $CD3^{-}CD56^{+}$ flow cytometry) and activation (>50% expression of CD137). EGFR-expressing cancer cell lines including SCC6 (A), PC1 (B), and SCC4 (C), were cultured for 18 hours with pre-activated, purified NK cells in media alone, or with anti-CD137 mAb (BMS-663513, 10 μg/mL) alone, cetuximab (10 μg/mL) alone, or cetuximab plus anti-CD137 mAbs (both at 10 μg/mL) and supernatant was harvested and analyzed by ELISA for interferon-γ (A, SCC6 *p=.49; B, PC1 *p=.012; C, SCC4 *p=.32). To evaluate iDC and NK function, purified iDCs were isolated from three independent, healthy donors and cultured with pre-activated, purified, autologous NK cells in media alone, or with anti-CD137 mAb (BMS-663513, 10 μg/mL) alone, cetuximab (10 μg/mL) alone, or cetuximab plus anti-CD137 mAbs (both at 10 μg/mL) and supernatant was harvested and analyzed by ELISA for IL-12 (D, *p=.049, **p=.001), IFN-γ (E *p<.001), and TNF-α (F *p=.004, **p<.001).