

**Supp Figure 1**: Targeting *Tgfβ signaling in BRAF*<sup>V600E</sup>-*induced PTCs.* **A**) Western blots of protein lysates from a cell line derived from a Braf<sup>V600E</sup> PTC incubated in serum free medium for 24h and then treated with TGFβ1 for 1 h in the absence or presence of the TGFβ1 blocking antibody 1D11 or the TGFβR1 kinase inhibitor SD208 (1  $\mu$ M). **B, C)** Effect of TGFβ1 blockade on SMAD activation and <sup>124</sup>I incorporation *in vivo*. Braf mice were treated with isotype control IgG or 1D11 antibody once every 2d for 14d. **B**) Western blots of PTC lysates collected at day 14 probed with the indicated antibodies. **C)** Thyroid <sup>124</sup>I uptake (%ID/g ±SEM) in *Braf* mice before and after treatment with 1D11 or isotype control. <sup>124</sup>I uptake was measured by micro-PET 24 h post <sup>124</sup>I administration before and after 14d of treatment. Each cohort contained 4 mice. **D,E**) Knockdown efficiency screen shRNAs to TgfβR1 (**D**) and TgfβR2 (**E**) in mouse Braf-PTC cells. *Top:* Quantitative RT-PCR performed in triplicate. *Bottom:* Western blots for pSMAD of TGFβ1 treated cells. **F**) Comparison of *TgfβR1* and *TgfβR2* shRNAs on TGFβ1-induced SMAD activation in Braf-PTC cells. **G**) Quantitative RT-PCR of thyroid differentiation markers in PTCs from *Braf, Braf/TβR1* and *Braf/shTβR1* mice. Four mouse thyroid tissues from each genotype were analyzed in triplicate. Unpaired t test with Welch's correction: \*p<0.05, \*\* p<0.01 compared to *Braf* mice.