

hTNFR2

Nomenclature	C57BL/6Smoc- <i>Tnfrsf1b</i> ^{em2(hTNFRSF1B)Smoc}
Cat. NO.	NM-HU-190010
Strain State	Repository Live

Gene Summary

Gene Symbol TNFRSF1B	Synonyms	p75; TNFBR; Tnfr2; CD120b; TNF-R2; TNFR80; TNFRII; Tnfr-1; TNF-R75; TNF-R-II; TNF-alphaR2; TNFalpha-R2
	NCBI ID	21938
	MGI ID	1314883
	Ensembl ID	ENSMUSG00000028599
	Human Ortholog	TNFRSF1B

Model Description

The endogenous mouse *Tnfrsf1b* gene was replaced by human TNFRSF1B gene.

Research Application: Immune-related

*Literature published using this strain should indicate: hTNFR2 mice (Cat. NO. NM-HU-190010) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

- **Validation of humanized TNFRSF1B(TNFR2) expression in the immune cells from Spleen**

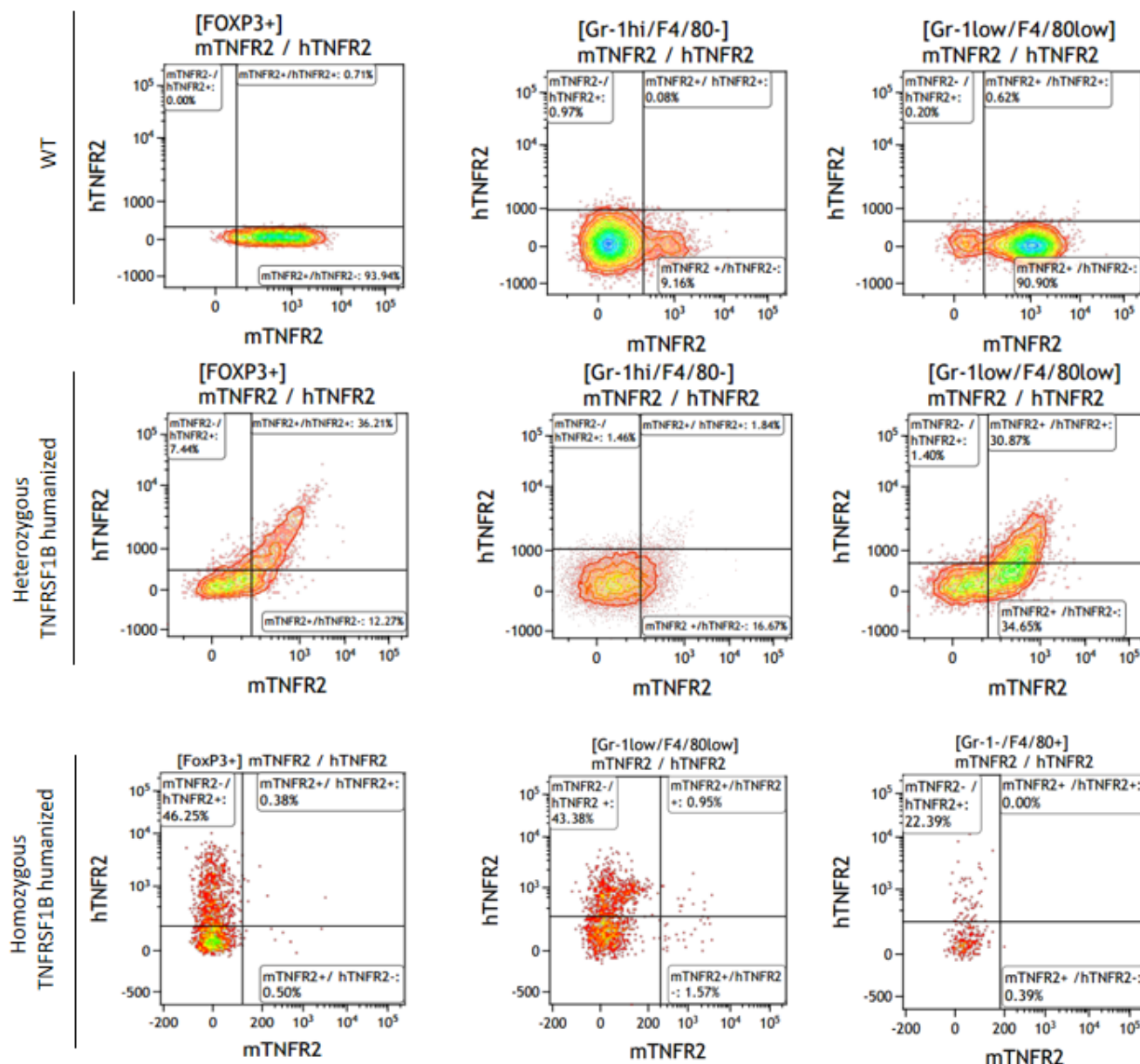


Fig1 The expression of human TNFRSF1B in humanized TNFRSF1B mice was measured by FACS. In humanized TNFRSF1B mice, active expression of human TNFRSF1B was detected in Treg cells and Neutrophils isolated from spleen. (In collaboration with CrownBio)

- **Validation of humanized TNFRSF1B(TNFR2) expression in the immune cells from Peripheral Blood**

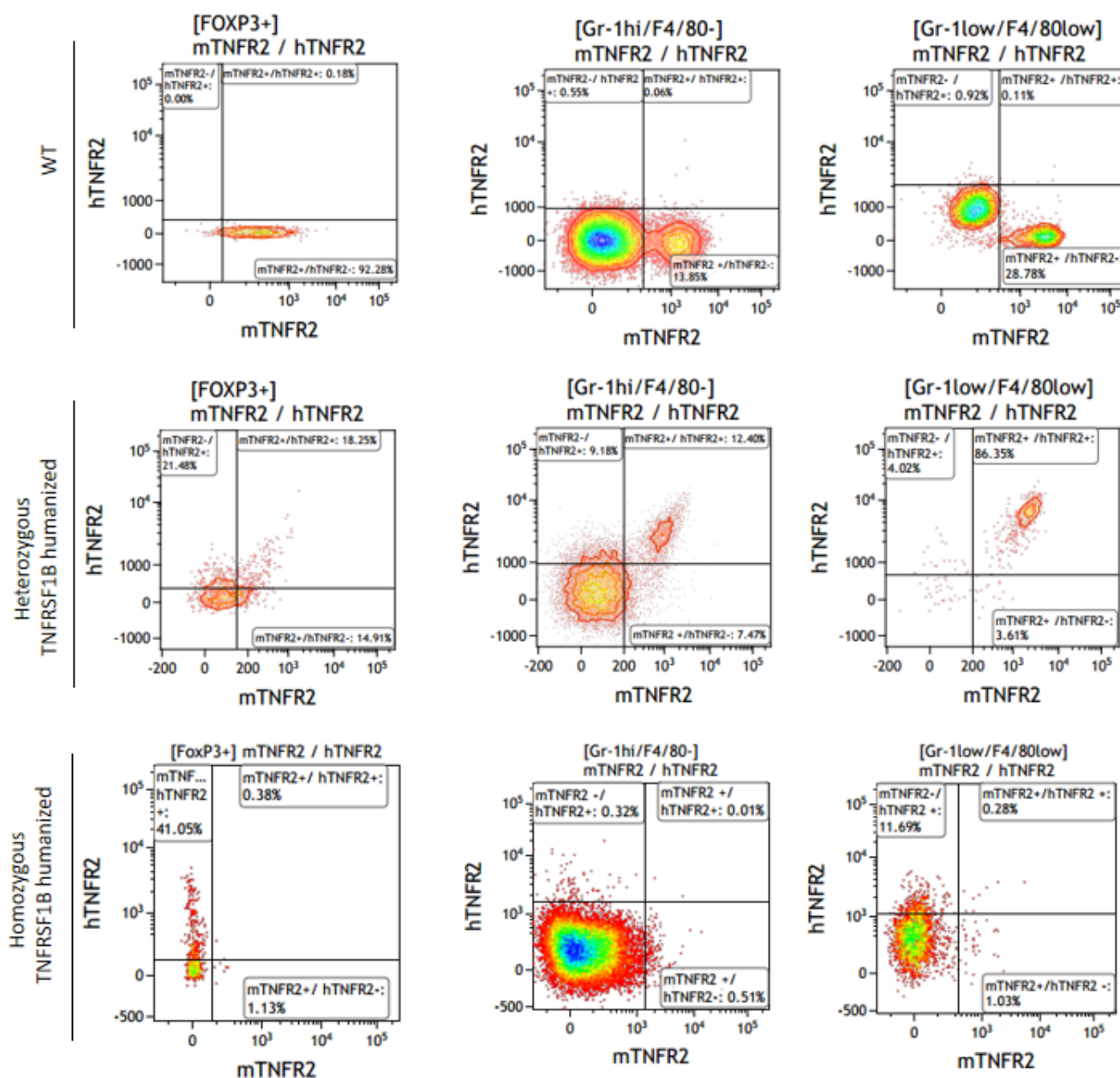


Fig2 The expression of human TNFRSF1B in humanized TNFRSF1B mice was measured by FACS. In humanized TNFRSF1B mice, active expression of human TNFRSF1B was detected in Treg cells and Neutrophils isolated from peripheral blood cells. (In collaboration with CrownBio)

- **Validation of humanized TNFRSF1B(TNFR2) expression in the immune cells from Lymph node**

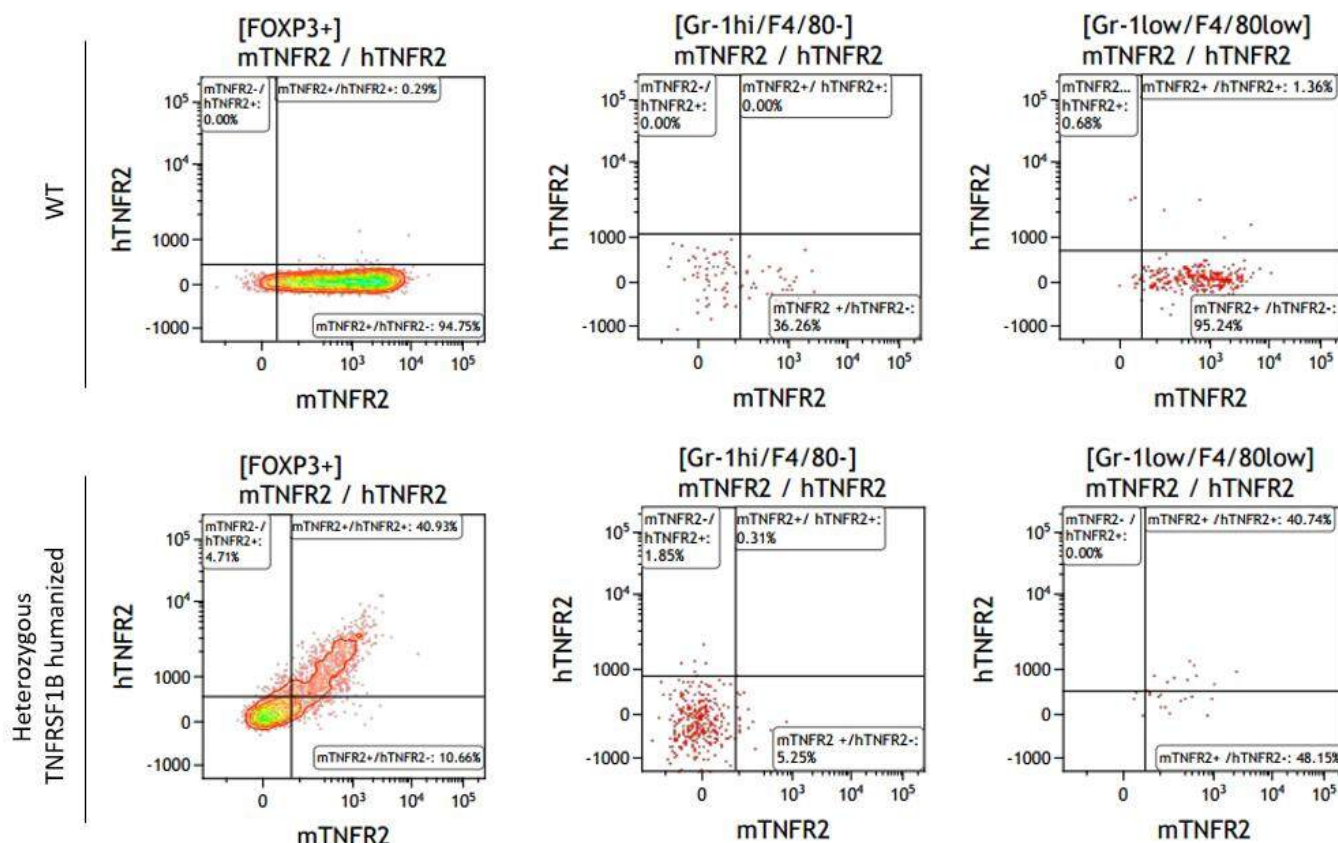


Fig3 The expression of human TNFRSF1B in humanized TNFRSF1B mice was measured by FACS. In heterozygous humanized TNFRSF1B mice, active expression of human TNFRSF1B was detected in Treg cells isolated from Lymph node. (In collaboration with CrownBio)

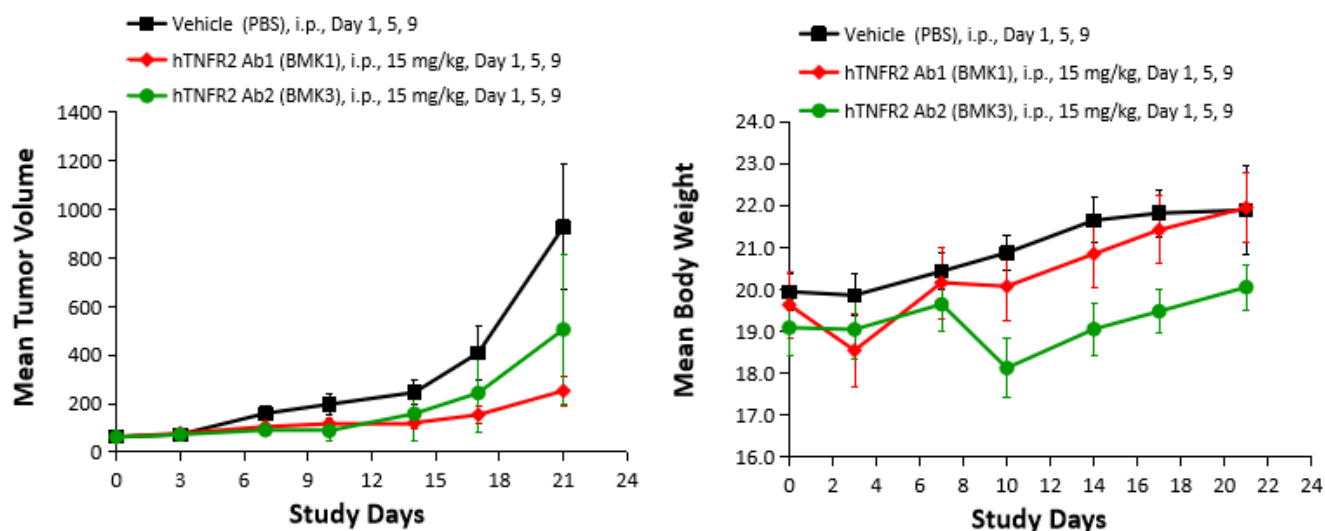


Fig 4. In vivo anti-tumor effect of anti-TNFRSF1B antibody, in a humanized mouse model of TNFRSF1B In vivo validation of anti-tumor efficacy in a MC38-OVA tumor-bearing model of humanized TNFRSF1B mice. Homozygous humanized TNFRSF1B mice were inoculated with MC38 colon cancer cells. The drug targeting human TNFRSF1B, showed a very significant anti-tumor effect, demonstrating that the humanized TNFRSF1B mice are a good in vivo model for validating the efficacy of antibodies targeting human TNFRSF1B. (In collaboration with CrownBio)

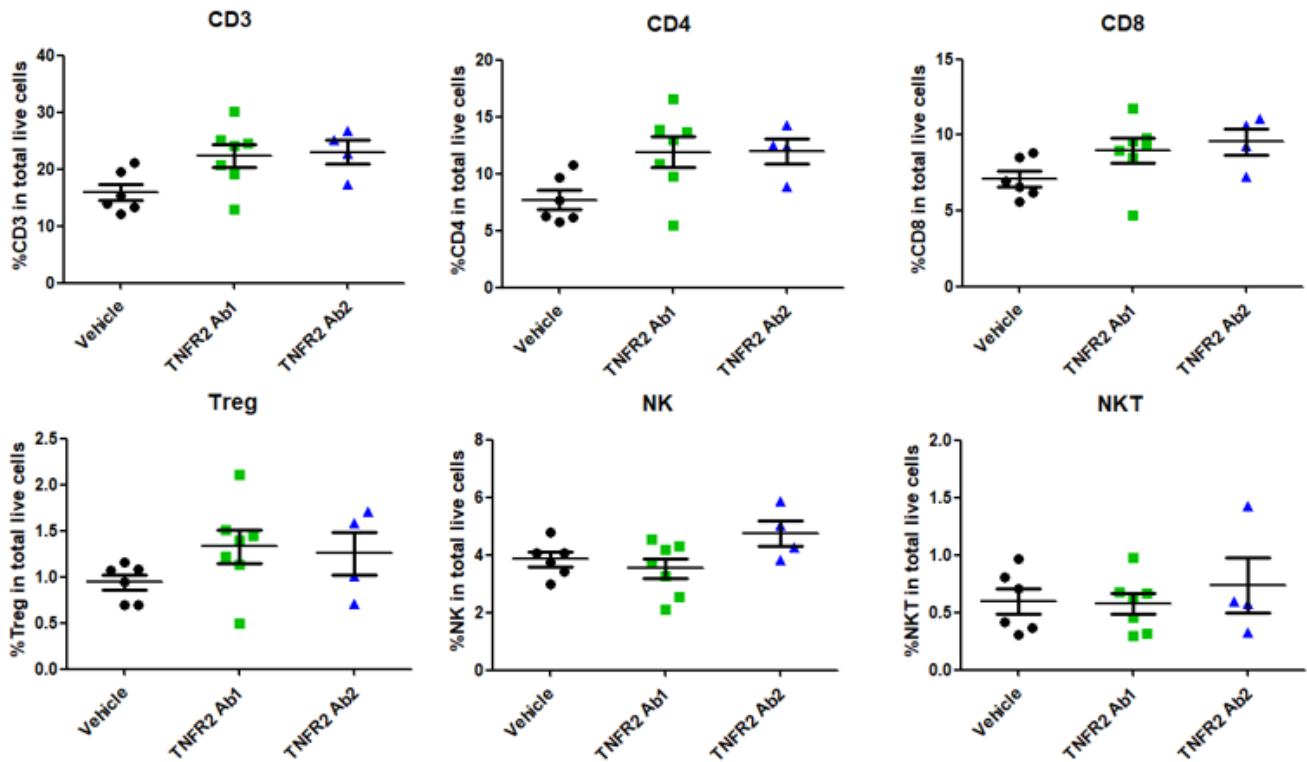


Fig5 FACS for blood upon TNFRSF1B antagonist treatment. Addition of antagonistic hTNFRSF1B antibody can impair hTNF-induced Treg cells proliferation, while the agonistic hTNFRSF1B antibody alone can induce a modest proliferative response. (In collaboration with CrownBio)

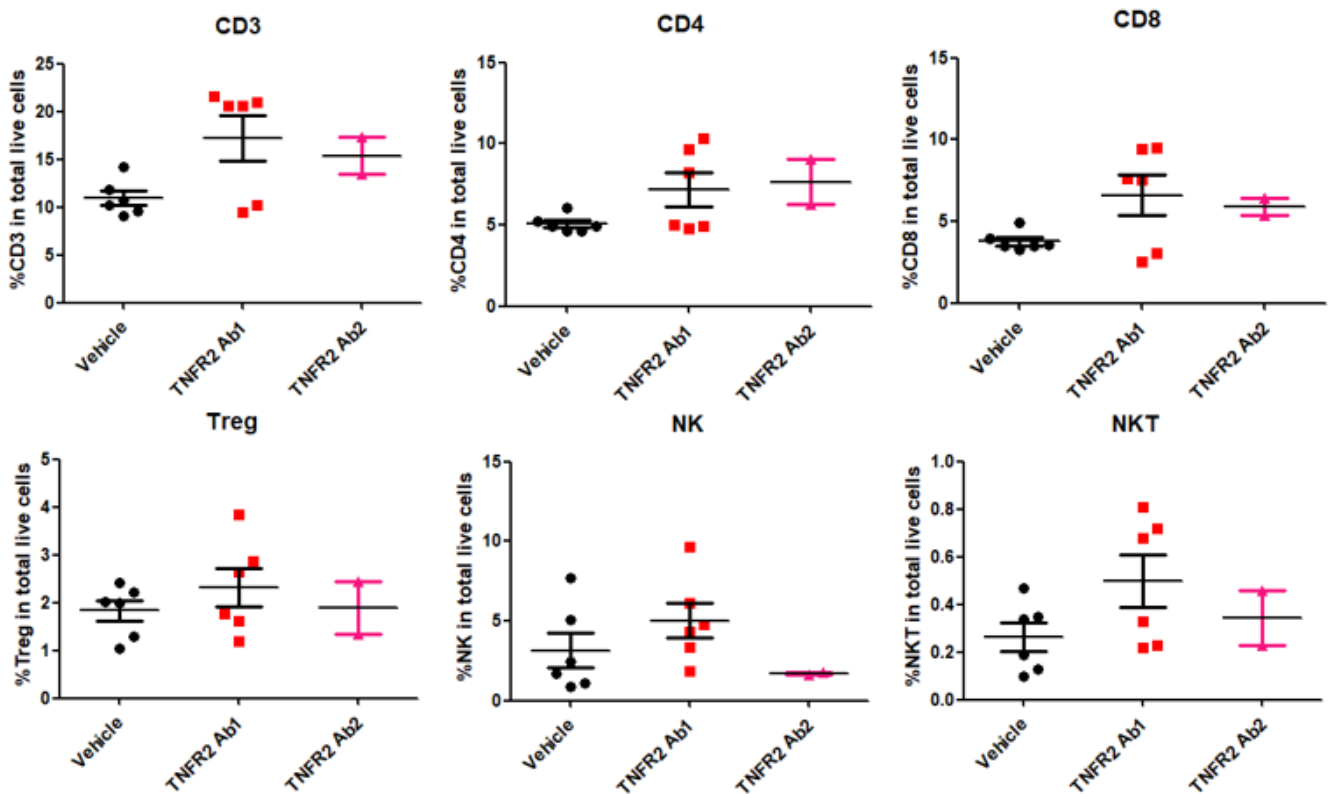


Fig6 TIL analysis upon TNFR2 antagonist treatment.

1 tumor in hTNFR2 Ab1 treatment group decreased (1/7, TV=0)

2 tumors in hTNFR2 Ab2 treatment group decreased (2/7, TV=0; 3/7 died during dosing period)

(In collaboration with CrownBio)

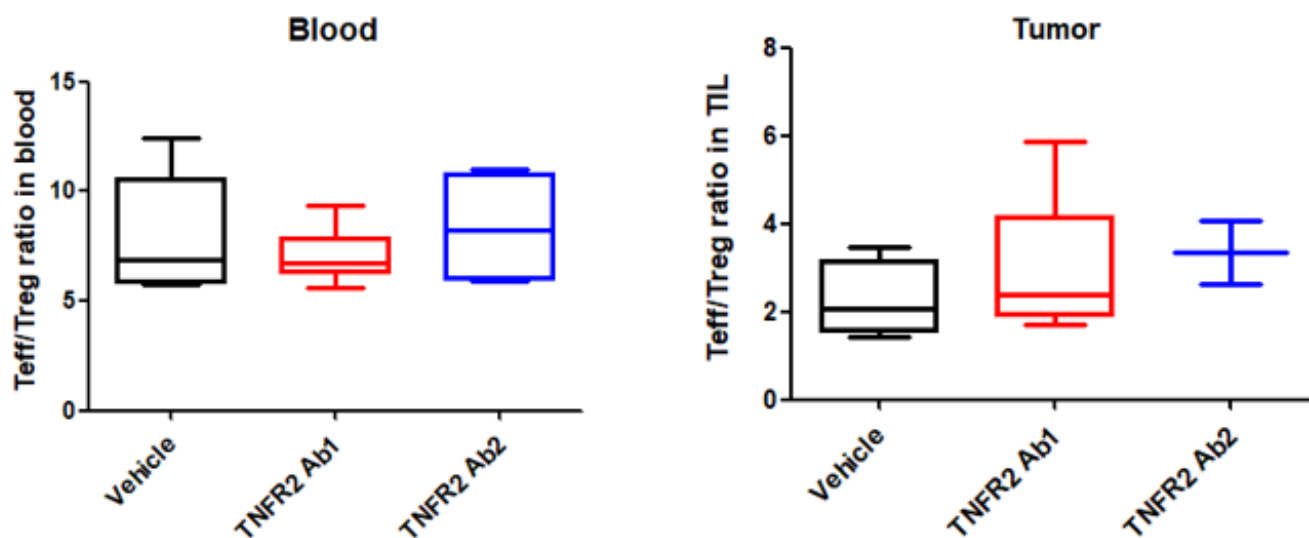


Fig7 TNFRSF1B blockade increases the Teff/Treg ratios in tumor microenvironment.

(In collaboration with CrownBio)